The Builder.

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The Imperial Houses of Parliament, Berlin.

IN the *Builder* of January 6 of last year we gave the plans of the two main floors of the Berlin Parliament Houses, with a detail elevation of the central portion of the façade, and photographs from the model of the building prepared for the Chicago Exhibition. These last did not of course form a very satisfactory manner of indicating the external architecture of a great building, but they gave an idea of its composition, and they were all that was available at the time. By the courtesy of Professor Wallot, the architect, we are now enabled to give fuller illustrations of this building, the largest and most important edifice in progress in Europe at the present moment. The exterior perspective view, reproduced from a very large and careful line drawing by Herr Gustav Halmhuber (the architect who is at present engaged in designing the architectural features of Professor Begas's National Monument in course of erection), will enable our readers to form a better opinion of the exterior aspect and architectural treatment of the building than could be gained from the reproduction from the model.

The interior view of the south hall and staircase, from a very large water-colour drawing in monochrome (our German architectural friends are heroic in the scale of their drawings), represents the view on entering the building by the central entrance on the south flank, the right-hand side of the plan published, as already mentioned, under date of January 6, 1894. There is a corresponding entrance of similar design on the north flank of the building, but without the staircase. The design of one side of the Council Chamber is illustrated from the architect's working-drawing; the effect of this portion of the design is, however, somewhat discounted in the drawing by the huge blank spaces on the walls, which are ultimately to be occupied by large paintings. The design, like that of the exterior of the building, is absolutely symmetrical, the drawing showing a little more than half of the wall, the centre line being in the middle of the large picture space. An illustration of the sculptured panels on each side of the principal entrance under the central portico gives an idea of the style of the minor sculptured decorations of the building.* At a future date we may be able to give some illustration of the sculpture of the building, to which considerable importance is attached, and which has been the result of competition among the leading German sculptors of the day.

The Berlin Houses of Parliament have now been in progress for eleven years, and about 1,100,000*l.* has already been spent on the building. A further expenditure of about a quarter of a million will be required for the entire completion of the building, which is not expected to be achieved for about five years more.

The building was the outcome of two successive competitions, in 1872 and 1882. In the second competition Herr Wallot, of Frankfort, obtained the first premium, and Professor Tiersch, of Munich, the second, and Herr Wallot after some time received the commission, but with instructions to revise his competition design. During 1883 three sets of plans had to be prepared in succession; and what with the continual alterations in the programme of the special committee entrusted with the supervision of the building, and the architect's own modifications, the design eventually approved by the authorities prior to laying the foundation-stone varied very materially from the premiated design. The foundation-stone was laid in June, 1884, and the works were commenced, but finality as to the design had even then by no means been attained. The architect was continually harassed by new requirements, and the want of a strong and decided policy in the Committee was much felt. Herr Wallot was further hampered by a contradictory desire, on the part of this Committee, to retain as much as possible of the elevations shown in the premiated design, in spite of the radical alterations demanded in the plan and arrangement. Among these were the lowering of the Council Chamber floor by about 10 ft., and the change in the position of the cupola from the centre, over the Council Chamber, to a front position. Various discrepancies between plan and exterior design were thus produced, for which the architect is not responsible. The plan, for instance, shows the piers provided and partly carried out for the cupola over the Council Chamber, which was subsequently condemned. The minutes of the committee in charge of the erection form amusing reading, or would do so if the spectacle of dilettante incompetence and want of purpose which they display were not rather a sorry one. The moral of the whole is—do not interfere with your architect.

All these circumstances should be borne in mind in forming an opinion on the architectural success or failure of the building. We fear there is little probability that it will be much admired in this country; and in regard to one feature, the central cupola, with its ugly lines of roof and its lantern resting on iron and glass, we have already expressed our opinion that it is probably the worst central feature erected over any national Government palace in the world. The fact that the position of the cupola on plan was altered after the building was commenced cannot be held as accounting for or excusing this unhappy superstructure. The plan shows piers of sufficient mass to have carried something better than this. But in regard to the remainder of the design, English architects who find themselves little in sympathy with it must remember the character of the nation for which it is erected. Except as regards music and the mounting of plays and operas, the Germans of the modern era can hardly be said to be an artistic people. But they are a strong, resolute, and practical nation, and still influenced by the recent memory of a great conquest. And there is something in the style of their Palace of Parliament which not inaptly reflects and expresses these characteristics. The absolute and almost defiant symmetry of the plan of the building, with its spacious columned halls opening right and left from the great octagon entrance-hall, carries an assertion of power and display with it. The solid treatment of the lateral portions of the front, between the portico and the angle wings, with the applied columns so completely a portion of the wall, and the heavy stringcourse under the windows cut off against them, has a fine effect; and the design of the open story over the angle pavilions, useless as it is, has a certain originality and interest. The character of

* The precise position of these panels will be seen in the detail elevation of the central portico already referred to, published among our illustrations of 1894.

bravura and "swagger" about the sculptural decorations strikes English eyes as coarse, but it is at all events not deficient in vigour, and it is in harmony with the traditions of German decorative art. The building would not suit us, still less would it suit the French, but it expresses the German character, as a national building should; indeed, the contrast between the Berlin building and the Paris Hôtel de Ville would be not a bad emblem of the difference in character of the two nations. And there are fine and effective portions of the interior which we have not yet been able to illustrate, but which would probably command general admiration. If the upper portion of the cupola were rebuilt on better lines, the building would be an adequate representative one for the German nation. Perhaps it is not too late to hope that this improvement might still be effected.

ALPHABETS: FROM AN ARTISTIC POINT OF VIEW.

THE perception that the design and placing of letters is not a mere matter of convenience of reading, but includes also an element of artistic effect, has been quite recently revived among us, after lying dormant for more than a century. The production of a book on alphabets,* giving an outline of their history and development, but treating them also with special reference to the question of design, comes, therefore, at an opportune moment.

In the present day we have mainly to consider the question of printed letters, except in regard to lettering which forms a portion of a drawing, and is executed by the artist. Of late years, as everyone must have observed, it has become a common practice with those who make sketches of architecture (more especially) for publication as illustrations, to incorporate the title with the drawing, as a portion of it, to be reproduced along with it. It is not surprising that it is with architectural draughtsmen and sketchers more particularly that this practice has obtained, as they have a keener eye for decorative effect than many other classes of artists, and prefer to render their title a decorative addition to the drawing, rather than leave it to receive the printer's "line" as an excrescence beneath it. No one has done better in this way than Mr. Herbert Railton, whose titles to his sketches are admirably picturesque, and have received the compliment of a considerable amount of imitation. The subject of artistic style in ordinary handwriting is not without its interest, though owing to the hurry in which correspondence in the present day has to be carried on there is little opportunity for attending to style in handwriting; legibility is all that can be attained, and more than many correspondents even aim at; while the increasing use of the typewriter, with its ugly mechanically-formed letters, is more and more tending to deprive correspondence of its individuality of character.

But in the days before printing, when writing was carried on slowly and deliberately, and for several centuries, during the Mediæval period, was used mainly for the transcribing of books and the drawing out of official documents, such as charters and deeds of gift, the style and formation of the letters was evidently as important a consideration as it ever was in the best days of printing, and some forms of printed letters have been directly derived from forms previously used in manuscript.

Mr. Strange's treatment of the subject, therefore, commences, naturally, with manuscript alphabets, though the very first example he gives, not from manuscript but from Roman capitals carved in stone (fig. 1),† is remarkable as showing how completely the Romans settled for all the succeeding centuries the main form of capital letters. This alphabet, as the author observes, is the ideal one for inscriptions on

Fig. 1.—Roman Capitals carved in stone.

stone on a grand scale, and is a characteristic monument of the Roman nation. Cut inscriptions, however, are one thing, and written inscriptions another, and comparatively early in the Christian era we see how the freedom of line available with, and even suggested by, the use of the pen in one form or another, began to show itself in the increased licence taken in the forming of letters, the temptation to indulge a kind of draughtsman-like flourish and *abandon* in the treatment of the extremities of letters, and to seek picturesque effect in carrying certain letters above or below the general line of writing. This latter habit reached an inconvenient, and even ludicrous, excess in the official writing of the early Mediæval period; many of our readers have probably noted the exaggerated form of this style of writing in some of the Mediæval documents which are to be seen by every visitor in the cases in the King's Library at the British Museum. Mr. Strange gives one specimen of this type of writing, "écriture diplomatique," from a MS. of the date A.D. 1119, though the extension of the letters upward and downward is by no means so abnormally developed as in other examples of later date. On the other hand, there has been a great amount of writing produced, in the earlier centuries of the Christian era especially, which is almost as neat, regular, and finished as print; Mr. Strange gives a beautiful example from a Sallust of the seventh century.

In these and other ancient examples it is remarkable how evidently the scribe was possessed by the idea of giving his page a decorative effect, a consideration which seems in fact to have often quite taken precedence of any desire to render it easily legible. A typical example in this sense is that of the Lombardic writing from a MS. of the thirteenth century (fig. 2), at the monastery

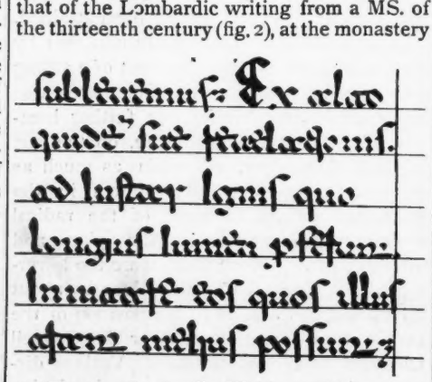

Fig. 2.—Lombardic Writing: thirteenth century.

of La Cava. This is unquestionably decorative in effect, and has a fine bold character, but it is certainly not very legible writing. And perhaps in the maintenance of this kind of decorative conventional hand we may find one explanation of the illiterate character attributed to many great men in the early and middle centuries of the Christian era. Writing was then a special profession, and it was obviously not to the interest of the professional scribe to make the matter easy to outsiders, any more than it is to the interest of lawyers to draw up legal documents in ordinary vernacular English, or of doctors to write prescriptions in intelligible language. In each of the cases there has been a professional "mystery" to keep up; the Mediæval scribe had every inducement not to write so that everyone could either imitate or understand his writing; and that Charlemagne could not write his name was perhaps, for the age, no more evidence of want of learning than for a modern sovereign to be unable to draw up a conveyance in proper legal phraseology.

Coming to the age of printing, we find in the early block type a striking similarity with some of the penmanship which preceded it; and when we come to the great era of the sixteenth century the author tells us that the "italic" form of type, which has played such a large part in printing ever since it was introduced, is credibly reported to have been evolved by its author, Francesco de Bologna, from an imitation of the handwriting of Petrarch. No one who has studied any examples of the noble and beautiful handwriting used by some of the great Italian artists and men of letters of the Renaissance period, will have any difficulty in believing in this origin of the "italic" type, which had the advantage of combining the regularity of print with the appearance of the free curves of handwriting. We are so accustomed in modern days to regard italics as a special form of type to emphasise or set apart a special sentence, that many who are not familiar with "olde bookis" probably hardly realise that this was at one time an accepted form of type for some of the most carefully produced editions of the Latin classics. There have been some attempts to revive it recently, as in Mr. Saintsbury's preface to the charming illustrated edition of "Pride and Prejudice," published by Mr. George Allen, but we doubt if modern readers will take to it. However pleasing it may look on the page, as to general effect, it is certainly far less easy and agreeable to the eyes, for continuous reading, than Roman type.

In fact, we may take it that Roman type, in one modification or another, is fixed as the type of modern books. The blackletter type has long been such a curse to German literature, that it is a wonder that it has not been exterminated long since. We must refer the reader to Mr. Strange's pages for a study of the various forms of lettering which have been used and abandoned since the Renaissance. It is sufficient here to say that the most usual form of type of the nineteenth century has of late been almost universally condemned by those who have made a special study of the subject. According to Mr. Strange, we owe our modern form of type more especially to the influence of Bodoni, who, however, was not a born nineteenth century man, but lived into the present century, and his manual of specimens was published by his widow in 1818. The author gives some specimens of his type, and contrasts it with specimens of the eighteenth-century types of Caslon and Wilson. There is, perhaps, a little exaggeration both in the condemnation of the Bodoni type and the praise of the eighteenth century specimens, and allowance must be made for a certain interest of archæological sentiment attaching to the eighteenth century forms. Bodoni's type has the merit of high finish and very legible quality, whereas some of the Caslon specimens rather want finish, though for legible quality they are excellent. The distinction is that the finish of the Bodoni type is mechanical finish and wants character; moreover, the thin lines of the letters are so

* "Alphabets: a Handbook of Lettering, with Historical, Critical, and Practical Descriptions." By Edward F. Strange. London and New York: George Bell & Sons. 1895.

† The examples given in this article are reproduced from Mr. Strange's pages, but nearly all of them in considerably reduced size, being given here mainly in explanation of our remarks. In the book itself they will be found on a larger scale.

thin as to take away from the solidity of appearance of the letter, and, in fact, actually to weaken it; while this attenuation of the thinner lines also prevents the page from presenting so even a distribution of black and white as is shown by the eighteenth-century forms of type. Mr. Strange points out another source of the poor and mechanical effect of Bodoni's style of letter, in the fact that he reduced to the smallest proportion the gradated portion of the curves. Two lines in Caslon and Bodoni type may be compared here (figs. 3, 4); as every one

Quouſque tandem
abutere Catilina, p
Quouſque tandem a-
butere, Catilina, pa-

Fig. 3.—Caslon Type: 1766.

Quousque tandem a-
butêre, Catilina, pa-
tientiâ nostrâ? quam-
diu nos etiam furor
iste tuus eludet? quem
ad finem sese effrena-

Fig. 4.—Bodoni Type: present century.

who has attended to the subject knows, the effect of a differing design on the type is often not fully appreciable until a whole page of the two is compared.* Part of the character of the Caslon specimen, it will be seen on close examination, arises from the oblique terminations of the extremities of the shanks of letters (see the first strokes of the n and m, and the top of the b and d shanks, for instance). This is also a characteristic of the beautiful fount of Roman type which Mr. Morris has designed for his work at the Kelmscott Press, and which for legible character combined with well-balanced effect on the page seems quite perfect, and is superior to the Caslon specimens. Mr. Morris designs the loop of the small e with an oblique closing line also, which contributes very much to the consistency of character of the type.

It may be observed that the want of boldness and character in design which Mr. Strange justly complains of in the Bodoni capitals, is to some extent a defect of the Roman carved alphabet above quoted (fig. 1), as will be readily perceived on comparing it with the letters given by Mr. Strange (fig. 5) from the tomb of the Emperor Henry VII. (Italian fourteenth century). For plain letters there could hardly be more finely designed capitals than these, which can be studied on a much larger scale on Mr. Strange's page. One important point to be noted in this lettering is the freehand character of the design, which does not appear to be reducible to, or derived from, geometrical curves. Mr. Strange speaks quite rightly, in one passage in his book, in favour of this freehand designing of letters, and observes that letters geometrically formed from portions of circles are seldom interesting or satisfactory in character, though he does give one specimen of a fine black-letter alphabet of Albert Dürer's in which the letters, as shown in a construction diagram, are all reducible to collocations of small squares. It may be questioned

* To many persons, we believe, it is not appreciable even then. The type of this journal was changed one day four or five years ago, from the type of the usual modern class—the Bodoni class—to the one more in the eighteenth-century style which we have since used. But we never had any evidence, at all events, that a single reader had noticed the difference.

however whether the result might not have been just as good if the construction had been less formal, though the formality

Fig. 5.—Capitals: Italian, fourteenth century.

perhaps gives a specially architectural character to the lettering, when used on a large scale.

At the present time, among those who take an interest in the artistic aspect of lettering, the preference is for the Renaissance form of Roman letters such as are illustrated in fig. 5; nor could a finer model be found. It is a form of letter at once artistic and legible, and is far superior in refinement of taste to any of the forms of "black letter" which were not long ago so much in fashion for ornamental titles and inscriptions. There is plenty of room, however, for variety of taste and fancy in designing letters in this general style, but without a slavish adherence to precedent. It appears that the Americans have already made some very good and successful experiments in variations of alphabets mainly founded on Renaissance forms, of which several are given in Mr. Strange's book, and are worth attention. A form of Anglo-Saxon alphabet of the seventh century (fig. 6), though some of the letters would be too archaic and enigmatical for modern use, affords a fine suggestion for cases in which, for a special architectural and decorative effect, a very square, simple, and monumental form of letter is wanted. The forms of the N and Q are noteworthy, and the occurrence of the Greek form of the letter P in this alphabet is curious. To the horrible class of things called "fancy lettering" Mr. Strange naturally devotes little attention, beyond

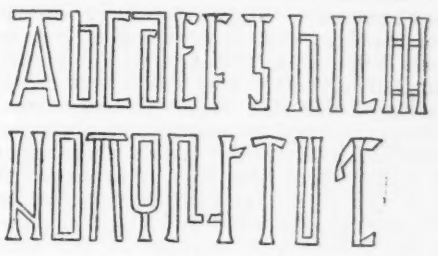

Fig. 6.—Anglo Saxon: seventh century.

giving a few of the worst forms to show what descents can be made in this direction; but we are surprised to observe that, while evincing a righteous horror of these, he can speak in such admiring terms of what he calls the "very beautiful alphabets of ribbon-letters" of the sixteenth century; German, of course; no other country, let us hope, would have been guilty of them. We should call them detestable. Is it merely because they are old that Mr. Strange feels a tenderness for them, and wastes two pages of illustrations on them?

The arrangement of lettering as well as the form of type is now receiving a good deal of revived attention from artists and artistic writers. It is a common thing now to find the arrangement of lettering on a title-page, for instance, instead of being left to the routine of the printer and his long and short lines, made a special study in regard to its arrangement on the page, especially in books on subjects connected with decorative art of any kind. In some of these cases the taste is somewhat too obviously archæological—an imitation of an old style of title-page; but there is plenty of room for design in such work without dropping into mere archaism. One of the sources of effect and character, especially in the use of the Renaissance form of Roman lettering, lies in the treatment of single letters in a special manner, following some suggestion arising out of their general form, or in the linking of letters or placing one within another. As Mr. Strange observes, this kind of fancy should be sparingly indulged, but within proper limits it is a source of a good deal of characteristic effect. An example given by

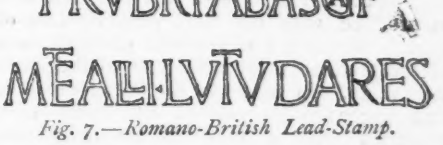

Fig. 7.—Romano-British Lead-Stamp.

Mr. Strange (fig. 7) from a stamped inscription on a Romano-British pig of

Fig. 8.—Handwriting Spanish, 1570.

lead, is interesting as showing the picturesque effect of this kind of device in a case in which it was evidently not used for any æsthetic reason, but merely for the sake of compression. The maker of this inscription found, as modern designers of inscriptions often find, that L and T are very suggestive letters to play with a little. Any device of this kind should always appear, however, to emphasise some natural characteristic of a letter; the vertical character of T, the long horizontal limb of L, the tail of R or Q, &c. In the case of written titles on drawings, the artist still has the opportunity of exercising character in pure penmanship, for which he will find many suggestive hints in Mr. Strange's pages, always remembering that the character of the writing instrument used must determine, to some extent, the character of the writing. Both Italian and Spanish manuscripts are rich in suggestions for the study of artistic handwriting. The Spanish forms are less known than the Italian, and we reproduce (fig. 8) a portion of an example of beautiful Spanish writing by Lucas of Madrid (late sixteenth century), an example of what is called the "redondilla" hand, and is a model of clear and clean design in hand-writing.

There is far more both in the way of information and examples in Mr. Strange's book than we have been able to indicate; in fact, there is not a superfluous page in it (except the ribbon-letters), and it would be difficult to find a book of under 300 pages with more information compressed into it. There is a great deal in it to suggest thought and new ideas on the subject of which it treats, and the turning over the numerous examples engraved on its pages is in itself a training to the eye in the appreciation of varieties of letter-form. A list of books of reference on manuscripts, painting, collections of alphabets, &c., is added at the end of the book.

NOTES.

THE important paper read by General Annenkoff at the International Geographical Congress, though a little out of the direct line of subject for such a Congress, merits every attention. The main point of it was, the importance of taking a world-wide survey of the conditions of food-produce and labour. He showed by statistics how unequal was the supply and the consumption of food in various countries. What was required was to produce, with the least possible loss of human strength, the greatest possible sum of the produce most necessary to the comforts of all. In order to do this, he said, it was necessary to explore and study new countries with a view of obtaining the greatest amount of produce at the lowest possible prices, by selecting what would be the most advantageous productions to send to countries where the inhabitants had the means of producing things of greater value. Both countries, the one providing and the one importing, must be provided for on equal conditions of cheap rates; and that, he suggested, was the end to which the efforts of geographical societies should be directed in our day. It would have been more correct to say, "one of the ends;" but at all events, this is a new and practical application of the extension of geographical knowledge. Everything seems to be tending in the present day towards a generalisation of work and statistics for the world at large. We are probably within measureable distance of the adoption of a "world-time," when an immense amount of inconvenience will be saved by the abolition of local time and the unification of clock-time for all latitudes. Nothing but the concurrence of all the civilised Governments is required to effect this—or the concurrence of all the great States, for the lesser ones will be under the necessity of following them. Another evidence of this generalising tendency is to be seen in the resolution of the Geographical Congress in favour of the production of a world map to the scale of 1—1,000,000, to be available equally by all countries. The Congress has made two important steps towards the accomplishment of this object, by agreeing on the acceptance of the Greenwich meridian, and on the mètre as the unit of measurement. The question of language to be adopted is a more difficult one, and is to be reported on to the next Congress at Berlin. We should expect that for all merely descriptive matter the French language would be agreed upon, as the most general language of intercommunication among educated people of different nations; but in regard to the naming of places we should suggest that the most rational and logical system would be to write the names as they are written in the country to which they belong. We should then fix the names of towns finally, and get rid of the anomaly of a city being called "London" in one language and "Londres" in another, "Köln" in one country and "Cologne" in another, and so on. This assimilation of names would be a great convenience, and it seems fair to assume that each country has a right to dictate the spelling of the names of its own cities. Besides which, each country would be much more ready to adopt the map if it found its own cities and places spelt in its own traditional manner.

WE are glad, of course, to see that various gentlemen who feel an enlightened interest in Greek archæology are promising subscriptions to the British School at Athens for five years to come, or have given liberal donations; all honour to them; but this is only a half measure. What we want is to see the British School at Athens endowed by the British Government; and that moreover is what it is the moral duty of the Government to do. No one who cares for seeing the place of England in archæological investigation honourably maintained can be satisfied with anything short of that.

THE next Trades' Union Congress will meet under peculiar and novel circumstances, for some very familiar and by no means unimportant delegates will be missing. Following the example of their Durham neighbours, the miners of Northumberland have decided not to send representatives to the forthcoming Congress. The northern miners are outspoken men, and have given their reasons for taking this step with characteristic frankness. They are not unwilling to fall in line with their fellow-workers for useful, practical purposes; but they regard the Congress as being, at the present time, a mere instrument in the hands of extreme, unpractical Socialists. This is a serious blow to the latter, coming, as it does, just as they have experienced such a rebuff at the polls. We are not aware of any further secessions from the Trades Union Congress, but it would not be surprising were other bodies to take up a similar attitude to that of the miners of the north. Looking back at past gatherings, it is patent enough to outsiders that the bulk of the proceedings is simply so much time wasted in vain, wild talk, and in passing barren and impracticable resolutions. This is beginning to be recognised from within.

THE question raised in the action of the Wandsworth Board of Works *v.* the County of London and Brush Electric Lighting Company is one of considerable importance to public authorities and electric lighting companies. It was whether, under the terms of the provisional order which authorised the placing of "boxes" under the streets for certain purposes, the defendants were at liberty to construct chambers of considerable size under the streets of the plaintiffs' district. When electric lighting first came in it was the universal custom to have separate transformers, and therefore separate transformer-chambers, for each house. It is now found far more economical to have what are called transformer sub-stations—*i.e.*, to have several transformers together at particular points, and to supply the energy by means of these, at a lower pressure, to all houses within a radius of about 200 yards. The size of the transformer-chambers which the defendants claim the right to put under the public streets was 10 ft. 3 in. deep, 7 ft. 6 in. long, by 5 ft. 6 in. wide, the use of chambers of this size having been sanctioned by the Board of Trade. The objection of the Wandsworth Board of Works was that the Board of Trade, in sanctioning these chambers, had authorised something which, according to the terms of the Parliamentary order, the defendants were not entitled to use. On Saturday last Mr. Justice Stirling gave judgment, coming to the conclusion that the transformer chambers were "boxes" under the meaning of the Act, and that the Board of Trade had not gone beyond their power in sanctioning them. The action was accordingly dismissed, with costs. It is obvious that the taking up of these large spaces underneath the street is a very serious matter. The Board of Trade will have plenty to do in reconciling conflicting interests, as these transformer chambers will often be extremely inconvenient for many public purposes. The public will not be very easily satisfied as to their safety, the many accidents last winter due to explosions of coal-gas in street-boxes having naturally made them careful. It will also impose on the London County Council a greatly-increased obligation in the way of supervision, with a corresponding increase of cost to the ratepayers. To set off against these drawbacks, the permission to make these chambers will be a great boon to electric-lighting companies, and will encourage them to extend their sphere of operations to poorer districts with a reasonable expectation of profit.

THE case of Wood *v.* the London County Council, heard before Mr. Justice Grantham and Mr. Justice Lawrence, appears to settle a point of some importance in regard to carriage-ways for access to a block of houses in flats, built as a quadrangle with a courtyard opening from the street. The appellant had been convicted before a magistrate for an infringement of Section 7 of the London Building Act, 1894, in "laying out a street for carriage traffic" without having obtained the sanction of the London County Council. The judges reversed the magistrate's decision. The appellant had built mansions round a quadrangle on a site formerly occupied by buildings, and proposed to leave a lawn with a carriage-way round it, wide enough for carriages and cabs brought there by the tenants of the mansions. The entrance was closed by gates, and the whole thing, the learned judges said, "was as private as could be." The court had not been asked to define the word "street," and did not attempt it. But it decided that this was not a "street." We entirely concur in the decision, though we think the County Council was justified in bringing the original action in order to test the point.

THE Medical Officer of Health of Lowestoft, in his last annual report, expresses the opinion that the sewer ventilation by open manholes bore a casual relationship to the increase in diphtheria throughout the country; we presume this latter phrase means the neighbourhood of Lowestoft. At all events, the Local Sanitary Authority has ordered that every surface ventilator within fifty yards of a ventilating-shaft, and also any within fifty yards of any public or large private school, shall be closed; and that the remaining surface ventilators should be closed in succession as soon as a ventilating-shaft should have been erected within fifty yards of them. If the erection of ventilating-shafts at Lowestoft is progressing, the Medical Officer will in his next Report

be in a position to give us some information as to the effect of this change on the prevalence of diphtheria in the town. The flushing of the sewers with sea-water, which at a seaside place can be had for the pumping, is strongly recommended, the Medical Officer urging that there is "no better fluid for the purpose."

THE Annual Report of the Carpenters' Company, for 1895, states that the examinations at the Stratford Institute have been very satisfactory in their results, the grant from the Science and Art Department being considerably larger than in the previous year. Referring to the series of popular lectures given during the past year, regret is expressed that more members "of the Livery" do not avail themselves of the opportunity of attending these lectures. The report concludes as follows :—

"The Court feel sure that the large amount of educational work they are carrying out will be of immense advantage to the Company in the event of any further inquiry as to the funds of the City Guilds, and connected as we now are with other Companies at Titchfield-street, they believe that a permanent bond of union has been established, and will be able to show that an amount of useful work is being accomplished far beyond the ideas of those who are disposed to question the desirability of the continued existence of the Companies."

HAVING lately established their school in the new premises, Barnard's Inn, the Mercers' Company seek tenders, on lease for eighty years, for the building site of their old school premises, in College Hill. Those premises, having an area of 4,900 ft. super., stand on the site of Whittington's Almshouses—next to St. Michael's Paternoster (Tower) Royal Church—which were pulled down for the then new school buildings, erected in 1808 after George Smith's designs; the almshouses being rebuilt at Highgate. The Mercers' School has seen many removals during the past 500 years. In the middle of the fifteenth-century it was held at St. Thomas of Acon's Hospital, in Cheapside, founded by Thomas Becket's sister, which, at the Dissolution, was acquired by the Company for their hall and chapel. The school was next taken to St. Mary Colechurch, and thence, after the Great Fire, to the west side of Old Jewry, where is now Frederick's-place. In 1787 the boys migrated to Budge-row, and thence, after seventeen years, to Red Lion-court, Watling-street. There they remained until the opening of the new buildings on College Hill. Bishop Wren, Sir Thomas Gresham, and Dr. Colet had their education at this school. College Hill and College-street (*antiqué* Elbow-lane) are so-named from the fact that Whittington's executors, as he had directed, completed his project of rebuilding St. Michael's church as a college, dedicated to the Holy Ghost and the Virgin, for a master, four fellows, conducts, and choristers; and of founding a hospital ("God's house") as an almshouse for thirteen poor men. He was buried in that church three times; his remains being disturbed in the reign of Edward VI. through the cupidity of the incumbent, who fancied that riches had been placed in the tomb, and again in Queen Mary's reign. On the monument his name had been inscribed as "Richardus Albificans Villam." The school is believed to have been established *circa* 1456 by John Niel, Master of the Cheapside Hospital: some claim for it a foundation coeval with that of the hospital itself.

NEXT autumn will be offered for sale the territorial domain of Kilmuir, in the north of Skye, a property wherein are situated Monkstadt, Kingsburgh, St. Columba's Loch, Kilbride, Floddigarry, and other places that form the scene of Flora MacDonald's heroic story, and of nearly all her married life, as well as of her grave. Kilmuir covers 46,000 acres of the northern portion of Trotternish. Known as the "granary of Skye," it contains the largest continuous tract of arable land in that island. With a seaboard of about thirty-five miles, its rugged coast presents many fine specimens of basaltic formation, especially south of the dismantled Duntulm Castle—a stronghold of the clan Donald, built in the twelfth century over a ruined Viking fort—and around Loch Staffin, near Quiraing, whose verdant plateau of singular beauty lies within a ring of columnar masses of basalt rock, rising in lofty and for the most part inaccessible peaks. Scattered about are numerous Culdee cells, and ancient earthworks; on Fladdachuain island is the site of a Druidical temple. At the estate's south-western corner is Kingsburgh, on the shore of Loch Snizort; the road goes northwards to Uig, thence to Monkstadt, and so on to Kilmuir Kirk, between which and Aird Point is the wave-beaten head of Duntulm. At Kilbride, close by Monkstadt and Kilmuir Kirk, Charles Edward (disguised as "Betty Burke"), Flora MacDonald, more correctly Fhionnaghail MacDhomhnuill, and Neil MacEachainn landed, Saturday afternoon, June 28, 1746, after their perilous voyage of fifteen hours in an open boat across Little Minch, from Rossinish, in Benbecula of the Western Isles, where, whilst visiting Nunton, the Clanranalds' seat, she, on the previous day, had first met the Prince. Flora's grave had been for long unmarked when in 1871 was set up a new memorial in shape of a monolithic Iona cross, carved from Kemnay granite by Mr. D. Forsyth, after Mr. Alexander Ross's designs—both being of Inverness. The cross, 28 ft. high, and standing 300 ft. above the sea, was afterwards overthrown and broken by a storm, but was, in a measure, restored.

UNDER the title of "A New System of Public Baths" Mr. Kane, the Superintendent of Public Baths to the County Council of Newport, Monmouthshire, sends us what can hardly be called a book, but a small pamphlet of suggestions,* in regard to an improved method of providing cheap baths for those who require them mainly for cleansing purposes. The author regards the usual form of slipper-bath as wasteful of water and (as generally used by the poorer classes) inefficient for cleansing purposes. Moreover, with its closed door, it is dangerous for persons liable to fits or who may go to sleep in the bath. Mr. Kane proposes a plan by which bathers who come mainly for cleansing purposes should have a range of undressing-rooms, with doors at each end, whence on one side the bather would go to a warmed waiting-room, thence to a room where he would be scrubbed by an attendant, as in a Turkish bath, thence to a towelling-room, and back to his dressing-room by the opposite door from which he left it. The author calculates that one attendant could wash eight people with forty gallons of water during the half-hour in which one slipper-bath customer was employing forty gallons to himself—inefficiently, according to the author, who asserts that no man can thoroughly wash his own back and shoulders; rather a serious statement, considering the large number of men who cannot afford to keep male attendants; but we deny the assertion. Providence, or Nature, took care to provide that the hands could reach every part of the body. As to the main question, however, we have no doubt that Mr. Kane is right, and that people whose avocations lead them into dirty work could get at least as thoroughly cleansed in the way he suggests, at a great economy of time and water. But we fear there would be a great amount of prejudice to be got over before it would be much used. If any trial is made of it on a large scale, we should be glad to hear the result.

THE Seventeenth Annual Report of the Glasgow Architectural Association shows a good record of work. The list of papers read and lectures delivered covers a considerable variety of important subjects, including "Byzantine Architecture" (Mr. Allan Graham), "Planning of Public Baths" (Mr. John Fairweather), "Planning of Country Houses" (Mr. Wm. Fraser), "Art Metal Work" (Mr. George Adam), "Egyptian Art" (Mr. James Chalmers), and a good many others on equally interesting and important subjects. The visits have been more numerous than before, and have been well attended. In September of last year a memorial was addressed to the Town Council relative to the proposed removal or setting back of the Tron Steeple, and praying that this notable piece of city architecture be left as at present. The memorial was laid before the Council, with the result that for the present at least the Improvement Trust has abandoned the idea. In the same month the attention of the Association was drawn by a member to the state of repairs in progress at the Cathedral. A committee, consisting of the Hon. President, President, Vice-President, and Mr. C. E. Whitelaw, was appointed to investigate, and to take such action as might be thought desirable. In consequence of the report of the committee, it was decided to communicate with Mr. W. W. Robertson, of Her Majesty's Office of Works, but in the first instance to call the attention of the Glasgow Institute of Architects, as the senior Architectural Society in the city, to the matter. Memorials were forwarded by both societies urging the desirability of not interfering with the internal stone work farther than might be absolutely necessary. Replies were received sufficient to remove any apprehension regarding the character of the repairs, but the committee has been continued in office to act as a vigilance committee. The most noteworthy event of the work of the Session has been the successful arrangement of a scheme of co-operation with the Glasgow Institute of Architects for the acquirement of premises to be jointly occupied by the two societies. Early in the session the terms were made known of a competition for a Travelling Studentship of the value of ten guineas, open to all architectural students in and around Glasgow under the age of twenty-five. The prize is the joint gift of the Hon. President, President, and the Association. The subject set was a Village Institute, to be placed in an open site. Six sets were received in competition, and Mr. George Gunn, A.R.I.B.A., was declared the successful competitor. According to the conditions imposed, a tour of not less than a fortnight's duration must be taken out of Scotland. Volume iv. of the Sketch Book has unfortunately not been a financial success, and notwithstanding the efforts of those in charge to increase the demand for it, about 100 copies still remain on hand. The committee, therefore, do not feel justified in commencing to collect material for vol. v. until they are confident of more hearty support. It is to be hoped that they will obtain this, for as far as it has gone, the Glasgow Architectural Association Sketch Book forms a very good collection of work.

WE stated, under the head of "Competitions," last week that the second-placed design in the competition for the Durham County Council buildings had been chosen to be carried out instead of the first premiated one, on the ostensible ground of economy. There appears, however, to be more to come out about this business, which has a very suspicious appearance. We hear, on good authority, that the assessor did *not* place the design of Messrs. Barnes and Coates second; his report has been kept private by the Council; the architects are local men, and a connexion of one of them is an Alderman. All this looks very like a repetition of the old and often-acted discreditable story of competitions for small municipalities. Messrs. Cooksey and Cox, to whose design the assessor unquestionably did award the first premium, have not even had official com-

* Published by Simpkin, Marshall, & Co.

munication from the Council on the subject, but have simply been thrown over without explanation. A memorial is to be addressed to the Durham County Council on the subject, from some of the other competitors.

THE NEW GRAVING-DOCK AT SOUTHAMPTON.

THE maritime trade of Southampton has so greatly increased of late years that additional facilities for the accommodation of the larger vessels which now frequent this important port were almost essential if its prosperity was to be maintained. No other town in the United Kingdom has shown more energy in securing a fair share of the trade of this country, and this fact, taken in conjunction with the natural advantages which it possesses, and the enterprising policy of the directors of the London and South Western Railway, who are, in a large measure, responsible for the progress that has been made in this direction, now causes Southampton to be recognised as the first port on the South Coast.

Soon after the purchase of the docks by the above railway, which property, it would appear up to that time had never been remunerative, it was announced that the Inman line of ships would henceforth come to Southampton instead of Liverpool, which they had previously made their head-quarters, and this to a large extent compensated for the serious loss the port had sustained when the Peninsular and Oriental Company decided to transfer the whole of their extensive trade to the Thames.

Directly the purchase was effected, the new owners of the docks commenced to make such alterations and improvements as would secure additional trade, by dredging the channel so that the largest ships could enter the Empress Dock even at the lowest spring tides, and by procuring from the town authorities a large expanse of land for the construction of the graving-dock which has just been completed, and which was opened by the Prince of Wales last Saturday. By affording such efficient accommodation, various large shipping owners have been induced to send their vessels to this port in preference to others, and so great have been the facilities offered that it is not surprising to learn that the trade during the last few years has materially increased. Formerly, when ships were built to suit the existing dock accommodation that could be obtained, it was not so important to study the owners' requirements, but now that the size of vessels has been so much increased it has become necessary to construct suitable docks for them, and those ports which do not recognise this fact must necessarily be contented with the trade brought by ships of comparatively small tonnage.

The new graving-dock has been made on the south side of the Empress Dock. It has been constructed in accordance with the designs of Messrs. Galbraith & Church, the engineers to the London and South-Western Railway Co., and has been built by Messrs. Lucas & Aird, contractors, in two and a-half years—a very short time, considering the difficult nature of the work which had to be accomplished. It is 750 ft. long, 87 ft. 6 in. wide at sill level, 112 ft. 6 in. wide at quay level, and 42 ft. deep, and, consequently, it is the largest dock of this kind in the world.

Up to the present time all the ship repairing that was needed at Southampton had to be performed in four dry docks, which varied in length between 250 ft. and 450 ft., and in width between 51 ft. and 80 ft., with a depth of water of only 15 ft. to 25 ft., but the one now provided, being of much greater capacity than any of these, will be able to accommodate even the largest vessels using the port. It has been constructed on land which has been reclaimed between the rivers Itchin and Test, and open direct into the Empress Dock. Considerable trouble was experienced in forming this entrance, as it was firstly necessary to construct two coffer-dams to enable some 4,000 tons of concrete to be removed, for which purpose gelignite had to be resorted to for blasting.

Portland cement concrete is used throughout for the walls, which are built in steps, as is usual in work of this character. These walls are, however, faced with brickwork, which is itself faced with blue bricks. The coping along all the walls, the sluice-faces, and other important portions of the work, are all composed of Cornish granite. A caisson is placed between the graving-dock and the Empress Dock, and this is used also as a bridge, since its deck is fitted with permanent-way in connexion with the existing railways, and a gangway for foot-passengers on either side. This caisson was built by Messrs. G. Rennie & Co., of Greenwich; it was erected near the site, and, after completion, was launched forward and finally lowered into position. It is 95 ft. long and 25 ft. wide, and is ballasted with 460 tons of cast-iron kentiledge, and can be floated into a recess provided for it.

The water is admitted to the dock through two 7 ft. 4½ in. culverts, the operation of filling occupying two hours, and after a ship has entered a further period of two and a quarter hours is required to pump the dock dry again. Very powerful machinery has been supplied and erected by Messrs. J. & H. Gwynne for this purpose, the plant consisting of two of their Invincible Centrifugal Pumps, each driven direct by a pair of vertical high-pressure steam-engines of 200 horse-power. A third pumping-engine of similar design, although of smaller dimensions, will be employed to empty the culverts, and generally to overcome any leakage that may probably occur. The suction and delivery branches of the pumps are each 4 ft. in diameter, and the valves in connexion with them are actuated by hydraulic power. The pumping-station is placed on the east side of the dock, and contains six Galloway boilers, each 30 ft. long by 7½ ft. diameter. Hydraulic power for working cranes and capstans is also provided, in addition to a travelling Titan capable of lifting 30 tons.

From the dimensions of the dock it will be observed that it would contain some 73,000 tons of water, necessitating pumps discharging no less than 540 tons per minute in order to empty it in the specified time.

Surrounding the land upon which the dock has been built a new quay has been constructed, along which railway accommodation and extensive warehouses are to be provided. The easterly portion of this quay will be used for disembarking passengers before the vessels commence to discharge their cargo.

It will be seen from the above description of this important work, that while it is a direct benefit to Southampton, it may be also of great importance to the nation at large, since it is situated in a place capable of being easily defended, and may therefore be found in time of war of greater value than many of our more exposed arsenals.

SURREY ARCHÆOLOGICAL SOCIETY.

THE annual excursion of this Society took place on the 23rd ult., and the places visited were Godalming, Hascombe, Dunsfold, and Chiddingfold. Godalming was the starting place; the church was visited by the Society in 1861, when a paper was read by Major Alfred Heales, which was published with illustrations, in the fourth volume of the Society's "Transactions"; this was not visited on the present occasion. The party consisted of about seventy persons, ladies and gentlemen, and were driven thence to Hascombe. The church here has a wooden porch, which is referred to in Parker's "Glossary."

The company then mounted Hascombe Hill, where a paper, written by Mr. Ralph Nevill, F.S.A., was read by Mr. Mill Stephenson, Hon. Secretary (in the absence of Mr. Nevill from ill health), "On the Topography of the Roman Camp," in which the writer expressed the opinion that the camp on Hascombe Hill was Roman, from its rectilinear formation, and from the discovery, in the neighbourhood, of the Roman villa at Chiddingfold; another reason for concluding the camp to be Roman, was the existence in that locality of the interesting name, Nore, which represented the Roman Noverca, a name given to any place adjoining a camp, such as Nork, near Epsom, and many other places. The old church at Hascombe, which had disappeared, possessed that rare feature of an apsidal east end, and it might be that the foundations represented a very early church not unconnected with the settlement of the camp.

Mr. Mill Stephenson said the camp stood at an elevation of 644 ft. above the sea level, and he was inclined to differ from Mr. Nevill in thinking it was Roman, but thought it was of later date. There was, however, but one way of testing these camps, by exploring them with pick and shovel, and, in the meantime, all was conjecture.

After perambulating the camp the excursionists proceeded to Dunsfold, where they were received in the church by the Rev. H. Winn, the rector. Here Mr. J. L. André, F.S.A., read a paper descriptive of the structure. He said little was known of its early history; it was not mentioned in "Domesday." In the "Returns of Benefices of Pope Nicholas XIV.," the living was valued at twenty marks.

The superiority of the building was due to the fact that the living was given in the time of Edward I. to the Augustinian Canons of the Hospital of St. Mary, Spital, who were fond of noble buildings, but the living reverted to the Crown at the dissolution of the monasteries. The original building was, as now, cruciform, but there appeared to have been no provision made for a tower, either central or western. A belfry was added in the fifteenth century, and with parts of the porch, was the only addition made until the restoration a few years ago, when the organ chamber was added, and still more recently, a vestry. The beautiful tracery of the windows was remarkable in so small a country church in that part of England, and also other features, the doorways being unusually good, the porch door having some excellent ironwork. The chancel arch was a new one, and a niche intended originally to contain the statue of the Virgin Mary had been placed on one side, immediately above a squint, a most unusual position. There were still some curious old seats in the church, and paintings formerly existed on the walls, only one of which now remained.

The Rev. H. Winn asked for an explanation why a portion of an arch in the nave had been left unfinished with a portion of whitewash upon it. He said that in looking over a list of persons repairing the rails of the churchyard he had found several places called "Dene Holes." He was unable to find any such place now existing, and it had occurred to him whether they were similar to the "Dene Holes" which existed in Kent and Essex. He exhibited the register for inspection; in it was a curious certificate of a woman having been buried in wool, as was ordered in former times; also the communion-plate, the latter including a cup dated 1566, and a cover dated 1578.

Mr. C. F. Hayward, F.S.A., said the arch in the nave was left unfinished, because it was originally intended to have an aisle, but for some reason, probably want of funds, this had not been carried out. He expressed his regret that the wall-paintings said to have existed had been lost.

The company were next driven to Chiddingfold, where, in the church, the Rev. T. S. Cooper, F.S.A., read a paper. He said that about twenty-five years ago the Society visited this church, when Major Heales read a paper. This paper will be found published and profusely illustrated in the fifth volume of the Society's "Transactions." The Rev. T. S. Cooper was able to add some additional historical facts not then known to Major Heales, although they confirmed the accuracy of his paper. This church, with that at Godalming, came into the hands of the capitular body of Sarum in early times, and the advowson was granted by Henry I., about 1115, to the cathedral church of Sarum. The Manor of Godalming was granted by Henry II. to the Bishop of Sarum about 1155, the grantee being the then Bishop, Jocelin de Bohun. The original church at Chiddingfold was probably built of timber, but a stone church was erected in 1180. Some glass in a small window in the north aisle, coeval with the oldest part of the church, favoured this early date. It contained the cognizance of the Bohun family, a cross azure, probably put there to commemorate Bishop Jocelin, in whose time the new church was built. In 1290 extensive alterations and additions to the church were made.

The visitors then proceeded to the "Crown Inn," which was to have been described by Mr. S. Welman, Borough Surveyor of Godalming, but in his absence his paper was read by the Rev. T. S. Cooper; the paper was accompanied by some well-drawn plans, elevations, and sections of the inn. Mr. Welman spoke of the building as an excellent specimen of an English hall of early date, but the exact date and builder were not known. The earliest existing record was a deed dated March 20, 1383 (the sixth year of Richard II.), showing it to have been leased by Peter Pokeford for fifty years at 4s. per annum. The original plan was a parallelogram, and was divided internally by partitions into three compartments, a hall 28 ft. by 26 ft., and of one story from floor to roof. At the west end was an inner portion of the hall 15 ft. long, and at the east end was a kitchen. The general plan and features of the building were common to all Mediæval buildings of the same kind and period. After exploring the inn, the visitors next inspected the local Institute to view the collection of pottery and glass, &c., found at the Roman villa at Chiddingfold, and thence returned to Godalming.

MAGAZINES AND REVIEWS.*

THE *Art Journal* contains an article signed "R. W. J.," and illustrated by Mr. John Fullwood, on "Hastings, Old and New," bringing out effectively the peculiar charm of Hastings implied in the latter part of the title—its mixture of the style of the modern watering-place with the old-fashioned seaside town. "Few places," says the author, "combine town and country, sea-side and hill-side, the historical and the archæological, as does Hastings." The author, however, does not mention the most charming and characteristic effect of the place, the view from the high down on the east of the old town, from which the whole old town has the appearance of having flowed down by natural gravitation into the narrow valley between this and the opposite hill westward. An article on "The Making of Tapestry and Brussels Carpets," by "G. W.," recounting a visit to the Dean Clough Mills, Halifax, gives an interesting description, with illustrations, of the process of carpet-weaving. It is stated that the particular manufactory in question turns out six miles of carpet daily. The articles on the "Royal Academy in the Present Century," by Mr. Eaton and the late J. E. Hodgson, are continued, the present number dealing with the works of William Owen, Rossi, Henry Thompson, Thomas Phillips, Henry Howard, Samuel Woodforde, and Nathaniel Marchant; all Academicians in their day, whose names and productions are nearly forgotten now. Thomas Phillips's "Venus and Adonis," from the R.A. Diploma Gallery, of which an illustration is given, is a fine work worthy of being kept in remembrance.

The *Studio* devotes an article to "The Portraits of the Year, by Mr. Frederick Wedmore," with some very good illustrations, and one to Mr. Briton Riviere, in connexion with which a sheet of outline studies of the Polar bear at Regent's Park, caught in a number of different attitudes, illustrates very effectively this painter's practice (as we are told it is) of sketching and studying an animal in various positions—learning all about it—before proceeding to work it up into a picture. An article on the Second Manchester Arts and Crafts Exhibition, with a number of illustrations of objects exhibited, conveys the idea that much good work was to be seen there; some of the designs of furniture of a comparatively simple kind are especially good. We do not like to see several illustrations of work described as by "Morris & Co." Mr. Morris has constantly been preaching the doctrine of bringing forward the work of the craftsman; why does he, of all others, countenance this practice of letting works be exhibited as the design of a "company," instead of giving the actual designer's name?

The *Architectural Record* for the September quarter contains a very good article by Mr. Barr Ferree on *Architecture in London*, in the course of which we are glad to see that full justice is done our great building the Houses of Parliament, which the writer characterises as "an edifice so grandly thought out, so superbly planned, so satisfactory in its masses, its forms, its detail, that one can scarcely realise that it is the work of a single man in the present century." We concur with every word of this and the succeeding comments on this great building, and we fear we must also concur with the writer in the remark that "its immense superiority is even now scarcely recognised by English architects." In regard to the Law Courts, the criticism of which we agree with in general, there is a misapprehension in the statement that the public are not admitted to the great hall and that it is therefore practically useless; we do not know how the writer could have got this impression, unless he visited the building during the legal recess. If he had gone while the courts were sitting he would have found that every one could walk freely in and out of it. Of course it is practically useless for its supposed purpose as a *salle des pas perdus*, from not being on the same floor level as the courts.

In the *Engineering Magazine* an article on "The Architecture of Railroad Stations," by Mr. Bradford L. Gilbert, gives, with the help of numerous illustrations, a good outline of what has been done in this branch of what ought to be, but often is not, architectural design. Among the designs for small road-side stations those produced in America are often exceedingly good, being picturesque without the pretentious style which an English country station building, when it endeavours to be picturesque at all, generally falls into. In regard to great terminal stations we do not consider that an ideal design has ever yet been produced. The hotel type of front only distinguishes a railway station by custom, not by any innately suitable architectural character. In regard to the Gare St. Lazare, of which an illustration is given, it should have been noted that the hotel so oddly placed as a separate block in front of the main façade was no part of the architect's original design, and was thrust upon him against his will, by official order, after the station front had been separately designed and commenced.

The *Artist* contains an article of some interest, by Dr. George C. Williamson, on "Roman Sestertii," considered, of course, from the artistic point of view, in which respect their value seems to us to be much exaggerated; the heads are fine, but the praise bestowed on the figure in No. 12 is absurd. There is a considerable amount of interesting reading and illustration scattered over the number, but in a very scrappy form; a collection of odds and ends without system.

In that eccentric little journal *The Quest*, Mr. George Bayliss gives a historical sketch of Evesham and some of its architectural monuments, and old streets and corners, disfigured rather than illustrated by the imitation of an antiquated and crude style of engraving which seems to be the special fancy of the projectors of this journal.

In the *Atlantic Monthly* Mr. Peabody continues his notes of "An Architect's Holiday," and we recommend his article on French and English churches to the attention of all our readers. They may not agree with it all, but they will be interested to come across an American architect who is not wholly French-mad; who can appreciate the peculiar merits of English cathedrals, and the peculiar fitness of style of English country churches, and who can recognise that there is something in English mouldings and English vaulting superior to any work of the same kind in France.

In the *Fortnightly Review* the thoughtful article by Vernon Lee on "Beauty and Sanity" is a fine contribution to the literature of "higher criticism," in which the want of reserve and purity of form in modern art, its tendency to "intensity" rather than beauty, is dealt with; and though the special instance is mainly drawn from the art of music, the thought of the writer has a wider application than to any one art. Mr. R. A. Gregory contributes an article on "The Spectroscope in Recent Chemistry." Colonel Boxall's article on "Railway Batteries," though a military article, has an interest for every one as touching on improved means of coast defence for this country, and the constructive and mechanical difficulties dealt with have an interest, in another sense, for engineers.

Scribner, in its series on "Wood Engravers," treats of the work of Léveillé, illustrated by a frontispiece which shows a remarkable piece of face-modelling by elaborate line-shading.

In the *Century* Mr. Timothy Cole devotes a little more space than usual to his "Masters of Dutch Art," seeing that this month he deals with no less a personage than Rubens, three of whose works he engraves. That of the lovely "Chapeau de Paille" is a good honest piece of engraving, but a little heavy in effect.

Harper contains an article on "Midsummer Night's Dream," with Mr. Abbey's illustrations; but much as we admire Mr. Abbey's genius, we have long ago come to the conclusion that his *forte* does not lie in illustrating Shakespeare. The only one we like is "Enter Duke Theseus," which has a fine melodramatic sweep about it.

In the *Nineteenth Century*, the Rev. Edmund Ledger's article on "Stars and Molecules" is a very good popular setting forth of that last vast generalisation in cosmic physics, which traces out the same action, the same causes and effects, in the infinitely great and the infinitesimally little in the physical world. Several men of science have treated the subject in magazines of late years; we may recommend this article to the attention of readers to whom the subject is new. Two conjoint articles on "New British Markets," by Mr. Holt S. Hallett on that of China, and by Mr. C. E. D. Black on that of Tibet, may interest those who are looking for new outlets for British labour and production. Miss Sellers describes in another article the "Old-Age Homes of Austria"—a vast improvement certainly on our workhouse, where the merely unfortunate respectable person is grouped with the idle and vicious.

In *London Society* we have the continuation of "Reminiscences of a First Visit to India," by L. A. L., which gives a picturesque and vivid record of impressions.

The *Gentleman's Magazine* gives an account of "A Visit to Bonifacio" (Corsica), containing some description of the aspect of a place which has not been much described.

In the *Pall Mall Magazine* Mr. Grant Allen continues his series of articles on "Evolution in Early Italian Art," dealing with successive types of the Madonna, and Mr. A. F. Jaccaci contributes an article on "The Palace of Fontainebleau," with illustrations of the forest without and some of the rooms within.

There is no architectural, but some topographical, interest in the *Windsor Magazine's* illustrations of "Houses of Celebrated People." The same number contains an illustrated article on the contents of the Walker Art Gallery at Liverpool.

We have received the first two numbers of the new series of the *Sanitary Inspectors' Journal*, the organ of the Sanitary Inspectors' Association. It is well got up, and likely to be useful to those in whose interest it is published. It is issued monthly.

* The object of these notes is to point out anything in the contents of the current magazines which is of special interest to our readers, with occasional brief criticisms on the views expressed in such articles. When a magazine which has been sent to us is not noticed, it is because that number contains nothing that it is within our province to comment upon.

LECTURES AT THE SANITARY INSTITUTE.

IN connexion with the British Medical Association, which held its Sixty-third Annual Meeting in London last week, a series of receptions have been given at the Parkes Museum by the President and Council of the Sanitary Institute, which have been fairly well attended. Each evening a subject has been introduced in a preliminary lecture, the first by Sir Thomas Crawford, the second by Professor A. Wynter Blyth, the third by Dr. G. Reid (Staffordshire County Council), and the last by Professor Percy Frankland, each lecture being followed by a discussion. At Dr. Wynter Blyth's lecture, given on Wednesday last week, there were present Sir Robert Rawlinson, Sir Douglas Galton, Sir G. Humphry, of Cambridge, Mr. Rogers Field, C.E., and other eminent sanitarians, the subject of the lecture being "The Teaching of Hygiene as illustrated by the Parkes Museum." The lecturer briefly sketched the history of the Parkes, from its foundation in 1880, as a permanent memorial of the late Edmund A. Parkes, its removal from its first home at University College to its present site, and its subsequent amalgamation in 1888 with the Sanitary Institute. Its usefulness might be illustrated by the fact that it afforded object lessons of the most effective kind to 20,000 persons annually, that during the last nine years systematic instruction in the principles of hygiene had been given within its walls, and that besides the students attending the regular courses of lectures, over 1,000 students, a fair proportion of whom were ladies, from fifty-eight colleges and societies, had received instruction. They could not claim for their institution, that it was a model museum of hygiene. Such a museum would require far more space and an ample endowment in order that it might have complete departments illustrating the appliances necessary for the maintenance of life in the best conditions, in its different cycles, one gallery being devoted to infancy and the *crêches*, another to the school period of life, then to the occupations of the people and the arrangements necessary for the maintenance of health and domestic comfort, and finally to the inevitable period of decay involving the question of cremation and other methods of disposing of the dead. Being in no way subsidised by the State they had to be contented with a gradual growth, and the size and scope of the present building were far below what was felt to be desirable. But thanks to the donations and subscriptions of private members the museum had considerably developed, and within their small building they had, arranged in four groups, a most useful collection of exhibits illustrating the science of hygiene (Division A), others relating to schools, trades and professions (Division B), construction and sanitary apparatus (Division C), which included building materials, construction, machinery, the means of water-supply, sewerage, heating, lighting, and ventilation. Finally they had Division D devoted to personal and domestic hygiene.

In Division C, the most important division of the four, they had drawings of the sewers of London, plans and specifications of model cottages and blocks of dwellings (not always models of what should be imitated), some excellent designs from the *Builder*, many plans and specifications of blocks of improved dwellings in London and the provinces, and many

models of good and bad sanitary construction. The lecturer pointed out four models of sections of brick walling with and without damp-proof courses, in one of which, where no damp-proof course was laid, the effects of the damp were seen rising high up in the walls. In the others, where damp-proof courses consisting of two rows of slate bedded in cement, or a glazed stoneware course, or an asphalte course laid above the ground-line on the outside and below the ground-line on the inside, no such effects were visible. These illustrations were rendered still more emphatic by an adjoining exhibit, which showed in a striking way in a glass vessel the large quantity of water that a single brick could absorb, and demonstrated that in a damp house, where no damp-proof course had been put in, the walls might contain an enormous quantity of water. Other models demonstrated, by the rising bubbles on the surface of water in a cistern, how foul air was introduced into the house supply of water where the cistern was directly connected with water-closets. One large drawing showed almost all the possible faults of drain construction, and an admirable full-sized model of house-drainage was pointed out, which illustrated how a soil-pipe should be constructed and ventilated with anti-siphonage pipes to prevent the spread of foul air by siphonage in systems where water-closets were placed at different levels. Models were shown to illustrate the methods of testing the taughtness drains by the water and smoke tests, and the principles of action of the Pasteur Filter and the Berkefeld Filter, the only filters at present known to be safe where water contained bacteria. The latest addition to the collection of models in the museum is one demonstrating the danger of sewage contamination to a source of water supply even from great distances, where the subsoil is waterlogged. A pump in the middle of the model being set in motion, tubes on the outside of the tank showed, by the various depths to which the water descended, according to the distance of each tube from the central pump, that a hollow cone was formed by the contour of the water, and that any impurity contained within the periphery of the cone must eventually find its way into the water that passes through the pump.

In the discussion which followed, Mr. H. C. Soper (Devonshire), pointed out the danger to public health arising from the fact that sanitary authorities were not compelled to ventilate their sewers as private owners were compelled to ventilate their drains, by pipes having their outlets above the tops of the houses. The sewers were usually only ventilated by openings at the street level, a practice which he thought was responsible for much disease. Dr. Wynter Blyth admitted the existence of the evil in the case of old or ill-constructed sewers, but the danger was but slight where sewers were properly constructed and maintained. The great difficulty sanitary authorities had was to find owners or occupiers of houses who were willing to allow ventilators to be put up against the walls of their houses. They were always unsightly, and by many were considered sources of danger to the inhabitants of the nearest houses. A vote of thanks was accorded to the professor on the motion of Sir George M. Humphry.

The Pollution of Streams.

At the third of the receptions given last week by the Sanitary Institute at the Parkes Museum, Sir D. Galton, V.P., presided, the subject of "Water Pollution" being introduced in a preliminary lecture by Dr. G. Reid, M.O.H., &c., Staffordshire County Council. The lecturer pointed out that the increased pollution of rivers which had resulted from the very improvements realised in the sanitation of towns, demanded an early solution. The benefits to the towns which had resulted from improved land- and house-drainage had not been attained without injury in another direction, for the risk of typhoid-fever now removed from wells had been transferred to rivers. Sewage which formerly dissipated itself in the soil surrounding our houses, or which only found its way into water-courses by devious and numerous channels, now went in a more or less concentrated form directly to the rivers and canals, sometimes without any treatment at all, and generally after very indifferent treatment. On the other hand, the possibility of getting protection from water epidemics by the effective filtration of river water on the large scale had been proved in the cholera epidemic at Hamburg, and it had been fairly well established by bacteriologists that organisms which formerly existed for long periods in the soil perished more or less rapidly in sewage and in rivers. Still, as the law requires sewage to be purified before being discharged into streams, it was necessary to discover the most available means of doing this, and he (the lecturer) had, during the last three years, made a series of observations with that object. He had collected about 700 samples of sewage effluent and river water at thirteen points of observation, in streams in Staffordshire, where they had twenty-seven disposal-works. The rainfall on the day before, the week before, and the month before, each sample was taken, and the estimated flow of the stream at the time were systematically recorded and tabulated. He had not yet had time to extract from these records all the facts they were capable of yielding, but it was evident to him that the taking of such records in various counties and in foreign countries was likely to be of great future value. From these analytical results, combined with information acquired in his periodic inspections of the sewage disposal works themselves, he had arrived at the following fairly positive conclusions, which he presented not as an authority on the subject but merely as a humble student :—

(1.) Precipitation followed by land filtration gives the best results, provided that the land be suitable, and that it is properly prepared and efficiently managed.

(2.) That whatever may be the true explanation, the best effluents are derived from land which is deep drained.

(3.) That land properly used will do its work efficiently for an indefinite period, but if sewage in excess be applied, or if insufficient intervals for aëration are not provided for, the results will rapidly deteriorate.

(4.) That the needless volume of sewage received during periods of rain is a common cause of failure. A separate system of sewers should be established, and the dilution should be effected by properly-arranged flushing tanks, and not by uncertain rainfall.

(5.) Profit must be subservient to efficient disposal, and the land should not be sub-let to farmers, where the sewage works are at all extensive.

(6.) That in artificial filtration, polarite and magnetone do not possess any specific power of disintegrating sewage by mystic processes, but that they act merely as air-carriers, and so contribute to the growth and activity of the nitrifying organisms, which, with proper use, develop in their interstices.

The exhaustive experiments of the Massachusetts State Board of Health showed how effective was sand-filtration, and possibly the efficiency of sand-filtration might be increased by artificial aëration of the filters. Any system must prove a failure which aims merely at the precipitation of the solids and the disinfection of the effluent. To be satisfactory a filter must aim at producing as thorough a nitrification as possible. The lecturer suggested, in conclusion, that investigations such as those he had recently begun should be multiplied, to ascertain the nitrifying power of various soils at different depths, and that the nitrifying organisms should be carefully studied in order to arrive at as accurate a knowledge as possible of their life's history.

In the discussion which followed, Dr. Whitelegg said he thought a great deal of the efficiency of sewage disposal works depended on maintenance as well as on first construction. Some worked only eight hours a day, and not at all on Sundays. Sewage works should be kept going night and day, and certainly on Sundays as well as week-days, and there should be a power of entry upon the premises and compulsory inspection. On another point he said, many instances were to be found in Yorkshire of self-purifying streams. He found the sum total of filth at the lower part of such streams by no means so much as that which went in. It became deposited in banks and fore-shores, and was not purified at all. It should be diverted into drains and sewers, but in that case they would impoverish the streams.

Major Lamorock Flower agreed in the remarks of Dr. Whitelegg in regard to the importance of good maintenance as well as good construction.

Mr. J. W. Peggs said that another Act was absolutely necessary, the existing Rivers Pollution Act being almost unworkable.

Mr. Scott Moncrieff, referred to the varied and opposite opinions held by experts, in Germany, on the subject of the self-purification of streams. Pettenkofer advocated stricter sanitary regulations and more perfect systems of drainage, while Dr. Buchner declared that the River Issa, a tributary of the Danube, was capable of purifying the sewage of Munich so completely that there was no necessity for sewage works at all.

Dr. Reid replied to the various points raised in the discussion, and on the motion of Sir Douglas Galton a hearty vote of thanks was accorded.

Microbes in Water.

The fourth lecture at the Parkes Museum was given by Professor Percy Frankland, of Mason's College, Birmingham, the chair being taken by Professor Sir G. Humphry, of Cambridge. Professor Frankland read a short paper in which were described some of the leading results obtained in experiments made by him to ascertain the comparative numbers of microbes to be found in deep well or spring water, in water comparatively pure like that of Loch Katrine, water much less pure like that of the Thames, and in self-purifying streams, of which the Dee in Scotland was a typical example. In Thames water from 1,000 to 120,000 microbes might be found in every cubic centimètre, while in deep-well water the number might be reduced to ten, or under. By the analysis of samples of water taken from the Dee, above Braemar, it was found to contain only eighty-eight microbes per cubic centimètre. But taken again after receiving the sewage of Braemar, they had increased to 2,829 per cubic centimètre. In a sample taken some miles lower down, they were reduced to 129 per cubic centimètre, and further down still, after more sewage had been turned into the river, they had again risen to 3,780, and once more some miles away they only numbered 938 per cubic centimètre. This demonstrated that a stream might be repeatedly polluted and then be found repeatedly purifying itself. The purifying effects of sedimentation and storage were illustrated by experiments made ten years ago on London water, and the lethal power of sunlight, which was known twenty years ago, was discussed. The efficacy of the film or layer of slimy silk in filtration was pointed out, from which the rule was deduced that the materials in a filter should not be changed oftener than was necessary. Softening water by Clarke's process eliminated 98 or 99 per cent. of its bacteria. The most modern filters with one or two exceptions did not remove bacteria from water, which it was still as necessary as ever to boil.

A question as to how far down below the surface of water the lethal rays of the sun might be found operative, elicited from Professor Frankland an interesting statement. Dr. Buchner, of Munich, he said, had found that sunshine retained its destroying power over bacteria in the deep pellucid water of the Sternberger See to a depth of 10 ft., but the observations of Dr. Boccacce in experiments with turbid water were still more important. The latter experimenter had found cholera bacteria destroyed in the upper strata of a cylinder 18 in. deep, but that they were not affected in the lower strata. The general tendency of the lecture was to restore public confidence. There was much less danger to public health in the water we drink than bacteriologists had led the public to think.

A cordial vote of thanks was accorded, Dr. Percy Frankland's father, Dr. Frankland, the veteran analyst, being included in the proposal of thanks, which was made by Sir Douglas Galton.

Illustrations.

OUR illustrations this week are entirely concerned with the Berlin Houses of Parliament, and are from drawings lent to us by the architect, Herr Wallot, for the purpose. They include a perspective view of the exterior, from a drawing by Herr Gustav Halmhuder; a perspective view of the south entrance vestibule and staircase; the half-elevation of one side of the Council Chamber (the centre line is marked on the drawing), from the architect's working drawing; and reproductions from photographs of the carved panels on each side of the main entrance.

The subject is further referred to in the first article in this week's issue.

GRAY'S INN.—The block having been condemned by the London County Council, the entire west side of Field-court has recently been demolished for rebuilding. The court is included in a survey made for the Benchers in 1688, and is mentioned, though not by its name, in Strype's "Stow," 1720. It is probably so named from its vicinity to Red Lion-fields, where Red Lion-square was built in 1698; yet we may mention that the row leading from the west gate of the Inn, in Warwick-place, to Theobald's-road, parallel with Raymond-buildings, is called "Jockey's-fields." An old thoroughfare from Field-court through Fulwood's-rents to High Holborn, has been closed for several years past. A view of the buildings which have thus been cleared away will be found in "Gray's Inn: its History and Associations," 1886, by Mr. W. Ralph Douthwaite, Librarian to the Society.

Imperial Houses of Parliament, Berlin: Professor Paul Wallot, Architect.—Detail Elevation of Angle Pavilion.

Correspondence.

To the Editor of THE BUILDER.

KENSINGTON AWARDS.

SIR,—In your issue of July 27 you give a notice of the works for "National Competition, 1895," now on exhibition at South Kensington, and you say "the architectural work, as a whole, does not arouse our admiration, and if the work exhibited is representative of the South Kensington method of teaching architecture, the sooner those methods are improved the better." For these pregnant words the best thanks of all the students are due.

If, however, the *Builder*, speaking with an authority that cannot be questioned upon its own special subject, finds it necessary to suggest reform in the technical teaching or in the judgment of awards with regard to architecture, may it not also be the case with regard to the other departments of this colossal institute, which does not teach, but leaves both masters and students to flounder on year after year without any intimation or fixed standard of its requirements?

May it not be more safely said that South Kensington *teaches nothing*, it only administers large sums of public money in the most erratic fashion, and if this be so, surely it is time to demand a sweeping reform, and that it should *really* become the National Technical School.

If you would kindly find space for this letter, many hundreds of students, together with puzzled masters, would, I am sure, feel grateful.

Aug. 4, 1895. "MIDLANDS."

HOW IS AN ARCHITECT'S WORK TO BE PLACED BEFORE THE PUBLIC?

SIR,—When one sees in a professional journal a discussion on the representation of architects' work at the Royal Academy, one is instinctively led to ask the question what form of exhibition *could really represent* the men and their work in this particular business and enterprise called architectural practice.

Some members of the profession, in the recent expression of their opinions on this topic, seem to have evidenced a condition of mind which must strike the ordinary and less exalted practitioner as a strange revulsion of feeling, on the validity and representative powers of so-called architectural pictorial draughtsmanship.

It would indeed appear that it may now be accepted as a settled dogma, from those most capable of judging, that while architectural perspective representation is a right and proper vehicle of architectural expression, covering a large area and degree of architectural power and language, it is very far from telling the whole truth, and portraying the full scope of an architect's worth and power.

It would I think be instructive to get opinions on the question, not only as to architects' work as exhibited at the Royal Academy but on the far wider one: Can architects' work be publicly exhibited at all?

One is ever apt to suffer a large disability in any discussion of this kind, from the circumstance that as soon as one evinces any disinclination, however honest and well founded, to disregard the power of architectural pictorial representation, such an opinion breeds the tacit conviction, with those holding a contrary view, that the architect, not being one who himself possesses this much-coveted power, is stupidly unwilling to allow its possession and force in others.

It is therefore most refreshing to discover, from the opinions of your correspondents, that there is a growing feeling amongst even those who ostensibly possess this power of facile and successful presentation of their work, to consider this feature as very far from being the touchstone of all architectural attainment and ambition.

I take it to be quite possible for an architect to be able to study all his work in perspective as occasion may require, and yet for that architect not to be able to produce a finished perspective presentation of his work that should satisfy himself let alone those critics who have themselves become specialists and successful performers in this particular art.

However much some may clamour and insist that it is possible to practise as an architect without some amount of artistic education and aptitude—and most of us surely are aware that many men do so practise who possess neither the one nor the other—it must, I think, be conceded that individually such men are ever placed at a disadvantage which no one admits more freely than themselves.

At the same time, and giving allowance and precedence to this admitted form of professional aptitude, there are surely so many other issues, so many other features, which go to make up the every-day life of architectural practice, that I very much question if, as the years go by, one is not, perforce, bound to consider this special path of one's work as absolutely swamped and crowded out by other more numerous and pressing considerations. Naturally one wishes it was not so much so; but the fact remains, and in the face of the multitude of duties an architect is called upon to perform, it does not seem either easy or just to specialise any one of them as expressive of the particular fitness of an architectural practitioner.

We must be free from cant at all times, and I am strongly inclined to the view that a large majority of practising architects—men who have spent their youth in earnest study and who have a fair record to show that they may be considered well educated and expert as draughtsmanship goes—will have to confess that they use this form of their professional language less and less every day they live. It is after all and at the best only a language—only a means to an end.

It is always unsafe to descend to small details in discussing generalities, but I hope I am not singular in finding myself forced to the conviction that there is often more skill required, more knowledge demanded, more judgment and care necessary, in some unpretentious alteration and reconstruction, if it be done scientifically and well, than in many a more ambitious and showy work.

After all, the most urgent question for the public in this matter is the selection of an architect who is best able to spend their money in the best way, not in the cheapest, not in the plainest and ugliest way, not in the most costly and extravagant way, but in the way that has regard and affinity at all times to the special fitness and circumstances of things. A man of honour, of integrity, sound judgment, good common sense, technical skill, and fair scholarship. I fancy some of your readers, like myself, would be glad to know how such qualities as these, which many possess in high degree, who are not necessarily great at architectural pictorial representation, can be placed before the public for their early selection and ultimate retention.

"A COMMONPLACE PRACTITIONER."

The Student's Column.

METALS USED IN BUILDING.—VI.

THE PRINCIPAL ORES *(continued)*.

PLATINUM.—There is only one ore of this metal, viz., native platinum, but it is frequently alloyed with very rare minerals from which it has to be separated. These latter are worth mentioning from the circumstance that some of them, owing to the fact that they can now be readily reduced, will undoubtedly play a more conspicuous part than hitherto in the preparation of various manufactured articles and alloys. The principal metals of the platinum group may be cited as platinum, palladium, rhodium, osmium, ruthenium, and iridium. Platinum also occurs with gold, copper, lead, and nearly always with a fair proportion of iron. The ore is usually found in sand in the form of thin scales, large grains, and, very rarely, large lumps. Typically it is white, and does not tarnish on exposure to air. It has a very high specific gravity (up to 19), and fuses with great difficulty, points which serve to distinguish it from other metals. It is an extremely valuable metal; its principal uses depend upon its resistance to the action of heat, of oxygen, and of acids; it is ill-adapted to resist ordinary wear on account of its softness. A remarkable property of the metal, especially when in the forms of "spongy platinum" and "platinum black," consists in the power of condensing gases into its pores, promoting their chemical action upon one another, and this has received a striking illustration within the past few months in connexion with gas lighting (see *ante*, p. 36). Platinum is found in small quantities in two or three localities in South America, and more extensively in the Ural Mountains. At Evan's Head, in New South Wales, it has been discovered in payable quantities in sand on the sea-shore. Near Broken Hill mines, in the same colony, it is found in a lode associated with silver, copper and other minerals, and, according to assays of concentrates, the ore yielded from 10 to 16 dwt. of the metal per ton. The concentrated beach sand gave 4·3 per cent. platinum and 13·58 per cent. of tin ore. Grains of native platinum have been found in small quantities amongst the native gold of Rivière du Loup and neighbouring districts in Quebec; whilst on Tranquille river in British Columbia scale-gold is mixed with particles of platinum of similar shape and size. A certain amount of the metal is obtained from placer gold washings on the Pacific slope of the United States; at Port Orford and Randolph it occurs in the "black sand"-mines on the sea-beach. Platinum has been observed in river-sand in co. Wicklow, Ireland.

Uranium.—The principal ores of this metal, which is rare in nature, are—*pitchblende*, or uraninite, *uranic ochre* and *uranite*. The first-mentioned is the proto-peroxide of uranium, and usually contains about 10 per cent. of lead and silica; the second, which occurs in an earthy, pulverulent condition, of a lemon yellow or orange colour, is the hydrous sulphate of peroxide of uranium, generally with small quantities of lime, copper, and iron; the third embraces two species, *copper uranite* (or uran-mica as it is sometimes called from its superficial resemblance to mica), hydrous phosphate of uranium and oxide of copper; and *lime uranite* in which hydrate of lime takes the place of copper. Speaking in general terms, uranium is a white metal which does not oxidise in dry air, but if the temperature be elevated it oxidises rapidly, burning with a bright flame. The oxides of uranium are used, amongst other things, for staining glass, the uranous acid (U O) giving a deep black, and the uranic acid (U_2 O_3) a bright yellow. Uranium is found in small quantities in many parts of the world. The ore has occasionally been met with in mines in the parishes of St. Just, Gwinear, Camborne, Illogan, Redruth, St. Agnes, St. Stephens, and St. Austell in Cornwall. Small proportions of pitchblende were, a few years since, collected at Wheal Owles and East Pool mines, and more recently some lime uranite has been found at South Terras. The only mine at present worked in the United Kingdom is at Grampound Road, in Cornwall, and this is exploited solely for its uranium ores.

Tungsten.—The principal ores of this metal are:—

1. *Wolfram*, tungstate of iron and manganese (tungstic acid = 75 per cent.).
2. *Tungstic Ochre*, or wolframine, an oxide containing 79 per cent. of tungsten.
3. *Scheelite*, tungstate of lime with from 76 to 80 per cent. of tungstic acid.

The first-mentioned is by far the most important ore; it is commonly found in a massive condition associated with tin-stone, is of a greyish-black colour, and has very variable proportions of iron and manganese, the iron sometimes being as high as 20 per cent. and the manganese 14 per cent. Wolfram is found in all the mining districts of Cornwall, and is especially abundant along the northern side of the Carn Menellis granite. There is only one mine, however, East Pool, which produces any large quantity of the mineral. In reference to tungstic ochre, it occurs in a pulverulent and earthy condition, and results from the alteration of ores of tungsten. It is of a bright yellow, or yellowish green colour, and is composed of pure tungstic acid. Scheelite forms an ore in New South Wales, and is found near Keswick in Cumberland, Cornwall, Devon, the Hartz, &c. Tungsten is used in small quantities for hardening steel; also for solidifying plaster-of-Paris.

Titanium.—This metal is not important to us except when regarded in connexion with ores of iron (*ante*, p. 15). By itself it is chiefly employed to impart a yellow colour to ceramic ware. It is a greyish metal, somewhat resembling tin in appearance.

Chromium.—This is one of the most infusible substances known, surpassing even platinum in that respect. Its applications are very numerous. Chromium is used to a limited extent for hardening steel; its sesqui-oxide for imparting a green colour to glass; chromate of potash is employed in the production of chrome yellow paint, &c. There is practically only one ore of the metal, viz., *Chromite*, or chrome iron-ore, which is commonly found in a massive condition. Chemically it is chromate of iron, alumina, and magnesia, with from 45 to 65 per cent. of the sesqui-oxide of chromium. It does not occur in any great quantity in the British Islands, being found mostly in Turkey and Greece; also in Spain, and at Dubostica mines in Austria-Hungary, the provinces of Perm and Orenburg in Russia, the United States, and New South Wales. It is chiefly associated with serpentine; the ore crops out along the foot of the Sierras of the Pacific Coast of the United States, but contains less than 47 per cent. of the sesqui-oxide. There it is always found in pockets, the most important mine being situated near San Luis Obispo, in California. The deposits of chromite at Gordonbrook, near Copmanhurst, in New South Wales, occur in serpentine, a short distance from the Coal Measures. An igneous rock (epidiorite) is penetrated by this serpentine, and the chromite is found at and near the points of contact. The ore yields from 40 to 55 per cent. of sesqui-oxide of chromium. We may remark that the so-called "verdi antico" serpentine, largely used for decorative purposes, derives its green colour from chromite.

Manganese.—The principal ores of this metal are :—

1. *Pyrolusite*, the binoxide (manganese and oxygen), with about 64 per cent. of manganese.
2. *Psilomelane*, a variety of the foregoing, but with a small proportion of baryta.
3. *Wad*, with a large percentage of cobalt in some localities ; otherwise like the preceding ores.
4. *Manganite*, hydrous sesqui-oxide of manganese, with about 62 per cent. of the metal.
5. *Rhodonite*, the silicate, with protoxide of manganese 54 per cent. and silicate 46.

Manganese is one of the most useful minerals in nature and has received the sobriquet, "physician," on account of its "curative" properties. Professsors Bloxam and Huntington remark* that manganese "is the trusted physician of the iron and steel manufacturer. It is to this element that he looks for the cure of all the ills than iron is heir to, with the exception of the hereditary disease "phosphorus," which experience has taught him must be dealt with by more modern treatment of a radical nature. Amongst the most important of its uses are the removal of oxygen from iron, the neutralisation of the deleterious effects of sulphur, and the production of a fluid slag promoting its complete removal from the metal."

But manganese has many other applications in the building industry. The first-mentioned ore, pyrolusite, is so-called from its capability of removing the green and brown tints from common glass, in process of manufacture ; whilst certain compounds of the metal are employed in producing an amethystine colour in glass ; it is also used for bleaching purposes. Wad is occasionally made up into umber paint ; and Mr. Rutley states † that rhodonite when cut and polished is sometimes used for ornamental inlaid work ; it may also be employed for imparting a violet colour to glass ; whilst on stoneware, when mixed with common salt glazing it forms black, or, if sparingly used, a deep violet-blue glaze. Manganese is adopted very extensively in alloys, of which more hereafter.

We have no space to describe these five ores in the detailed manner their importance demands, but it may be remarked that pyrolusite and psilomelane are of the same colour, deep iron-black passing into steel-grey, they are both rather brittle ; but whereas the former mineral crystallises in the rhombic system, the latter, so far as is known, is not found in the crystalline form. Further, pyrolusite has a higher specific gravity (4·8 to 5) than psilomelane (3·7 to 4·7), though the latter is harder (5 to 6) than the former (2·0 to 5·5) ; and there are other points of difference when the minerals are examined with the blowpipe, or chemically. With reference to wad, that is an earthy ore, sometimes, however, forming dendritic markings (like the branchings of a tree), and is dull black or brownish black in colour. Manganite crystallises in the rhombic, and rhodonite in the triclinic system, and are also dark-coloured minerals ; the natural tint of the latter, however, is flesh-red, or brick colour, which may turn black on exposure.

The ores of manganese occur principally in stratified deposits. In this country large quantities were raised in Devonshire some twenty years since, but its production in that county at the present time is very limited. The manganese ore of North Wales occurs in the form of a bed of earthy carbonate, intercalated amongst grits and conglomerates of Cambrian age. It is used in the manufacture of spiegeleisen and ferro-manganese, and contains from 25 to 32 per cent. of metal. Dr. Foster describes the Welsh beds as being about 1 ft. in thickness, increasing to 2 ft. in places, and whilst the bulk of the ore is carbonate, there is a little silicate, and near the surface both these have been converted into hydrous oxides. It often contains chlorite, iron pyrites, and magnetite. Manganese ores are also raised in parts of Derbyshire.

Our principal sources of the metal are Russia and Chili, the ore in both countries being found in beds. In reference to Canada, it occurs in the province of Quebec as wad, or bog manganese, more or less mixed with sand or clay, and often containing a large proportion of peroxide of iron. In New Brunswick manganese is for the most part confined to Carboniferous beds, near their contact with the Silurian. The same may be said in regard to Nova Scotia, where a considerable amount of the metal is also raised from Carboniferous beds. The manganese ores of the United States are divided into three groups, viz. :—(1) manganese ores (pure) ; (2) manganiferous iron ores ; and (3) argentiferous manganese ores. The dividing line between the first two grades is taken at 70 per cent. binoxide of manganese, equal to 44·252 per cent. metallic manganese. All containing at least this amount are classed as manganese ores ; those having a less percentage and possessing also more or less iron are put in the second category. In the third class are included the argentiferous manganese ores of Colorado, utilised chiefly for their silver. Ores of the metal of good quality are being raised near Rockley, in New South Wales, and other lodes have been opened at Glanmire and Rylstone in the same colony.

* "Metals, their Properties and Treatment," 1894, p. 221.
† "Mineralogy," 1876, p. 145.

OBITUARY.

MR. R. H. DEAN.—We regret to have to record the death of Mr. Robert H. Dean, who has been connected with the advertisement department of this journal for very many years—indeed, since its foundation in 1842. Mr. Dean, who was seventy-three years of age at the time of his death, had retired from active work for some years.

GENERAL BUILDING NEWS.

PARISH CHURCH, SWANSEA.—It is stated that the Consistory Court for St. David's Diocese have granted a faculty for pulling down the parish church, where the accommodation is insufficient, and that Sir Arthur Blomfield will be the architect of the new church, which will have 1,200 sittings, and is to be erected at an estimated cost of 20,000*l.*, towards which amount 15,000*l.* is already subscribed.

METHODIST SCHOOL BUILDINGS, GLOUCESTERSHIRE.—On the 31st ult. the memorial-stones were laid of a new schoolroom in connexion with the Totterdown Free Methodist Church. The school and class-rooms consist of one large room 50 ft. long by 24 ft. wide, with an additional length of 12 ft., forming a gallery, the under part (intended for an infants'-room) being separated from the main room by movable screens. The whole of one side of the school is similarly fitted with glazed movable screens between the piers, which give access to four class-rooms adjoining ; these rooms being also separated by similar screens can be thrown open into the large room, thus giving over 1,800 ft. super. of open floor space. The façade of the school is in hammer-dressed blue Pennant stone with dressings of Monk's Park freestone. The main entrance is placed in the centre and is flanked on each side by windows. Another entrance is formed at the side by a small porch, having a battlemented coping and a truncated roof, covered with green slates and surmounted by iron cresting. This entrance, while giving access to the school and class-rooms, will form a secondary entrance to the chapel. Internally the whole of the joinery will be of pitch-pine. The roof will be of hammer-beam construction with a boarded ceiling, polygonal in shape. The gallery will have an ornamental iron front. The floor will be of wood block on concrete. The proposed additions to the chapel are of an extensive character, and embrace the substitution of a very large traceried window for the present window and door in Oxford-street ; a tower with a spire 70 ft. high, a porch with pinnacled octagonal piers and truncated roof, &c., in Bush-street, and new boundary walls, gates, railings, and lamps. In addition to these, the chapel is to be extended about 12 ft., with minister's room, &c. The whole of the stonework will be renewed or cleaned, as the case may be, and the windows fitted with leaded lights. The gallery now used by the choir will be reconverted for general use, and fitted with a new iron front, the partitions below the same being removed. A new choir and organ-gallery and rostrum will be fitted at the new end. The whole of the chapel will be re-seated with pitch-pine seats, and the gas-fittings and ventilation renewed, with the addition also of a new heating apparatus. Other works and decorations will also be carried out. The work is being carried out from the designs, &c., and under the supervision of Mr. William Paul, architect, of Bristol.

PRESBYTERIAN CHURCH HALL, WHITLEY, NORTHUMBERLAND.—The foundation-stone of the new Presbyterian Church Hall at Whitley was laid on the 31st ult. by Sir George B. Bruce. The whole scheme comprises a church, measuring 85 ft. by 36 ft., with accommodation, including galleries, for 660 persons ; minister's vestry ; ladies' room ; session room ; hall, 64 ft. by 28 ft., with seating for 270 persons ; ten class-rooms ; central corridor ; heating chamber and pantry in basement. For the present it is proposed to carry out the erection of the hall at a cost of about 1,600*l.* The ground having a fall of 1 in 25, it is proposed that the church floor shall have a similar inclination. The walls are built hollow, and are faced with red Ruabon bricks, with black joints, and rubbed Hebburn stone dressings ; and, for the roof, sea-green Westmoreland slates in diminishing colours. The contract is being carried out by Mr. Thomas Robson, of Tynemouth, from the designs and under the supervision of Mr. Henry Gibson, architect, of North Shields.

CHURCH HOUSE, CHEDDAR.—On the 30th ult. a Church House was dedicated at Cheddar by the Bishop of the diocese. The building has been erected from designs by Mr. E. Buckle, the Diocesan Architect, and is situate close by the Parish Church, at the entrance of the village from Wells. It consists of a hall, 57 ft. in length and 28 ft. 6 in. in width ; two rooms, each 21 ft. square ; also a porch and lobby, with scullery, and external offices. The material used is local mountain limestone and Doulting freestone, the whole of the buildings being covered with slate from the Delabole quarries. The woodwork is of pitch-pine, varnished. A large rose-window occupies the west end of the hall, and a large window of seven lights, filled with Powell's ornamental white glass, occupies the east. The builders are Messrs. Scorse & Son, of Cheddar ; Messrs. Ford & Sons, of the same place, being responsible for the masonry.

THE NELSON HALL AND BRANCH PUBLIC LIBRARY, EDINBURGH.—On the 1st inst., at the sitting of Edinburgh Dean of Guild Court, a warrant was granted to the Nelson trustees to erect at the corner of Murdoch-terrace and Dundee-street a building to be known as the Nelson Hall, and to be used as a recreation-hall, reading-room, and branch public library. The plans show a stone building measuring about 75 ft. by 75 ft., with a two-storied front to Dundee-street, and one story to Murdoch-terrace. On the ground-floor will be situated the recreation-hall, reading-room, and library, while on the flat above will be provided rooms for the staff, committee-rooms, housekeeper's accommodation, &c. On the right of the vestibule and entrance-hall is the Nelson Hall, which will be fitted up as news and recreation rooms. The library will be situated in the centre of the building, with an open counter to the inner entrance-hall for the lending and return of books. On the left of the library is a reading-room, 75 ft. long by 18 ft. wide, with boys' room behind. Accommodation will be provided in the library for from 11,000 to 12,000 volumes. The lighting of the building is, for the most part, from the roof. The architect is Mr. Taylor, of Messrs. Lessels & Taylor, Edinburgh.

BOARD SCHOOLS, YORK.—Sir George William Kekewich, K.C.B., Secretary to the Education Department, opened on the 3rd inst. two new Board schools at York, which have been erected at a cost of over 30,000*l.* The new schools have been erected in Fishergate and in Lowther-street, and both are built on the central-hall system. The Fishergate School is built on the site known as Mollett's Field, and will provide accommodation for 1,250 children. It is built in the style of the Georgian period, of red common bricks, the total cost, including the site, being about 14,000*l.* The Park-grove School has been built on a site between Lowther-street and Park-grove, and will accommodate 1,486 children. The buildings are of the Georgian style of architecture. Both schools have been built from the designs and under the supervision of Mr. Brierley, of Messrs. Demaine & Brierley, architects, York. The brickwork, masonry, and joiner work of the Fishergate School was executed by Mr. T. P. Barry, York, and of the Park-grove School by Messrs. Thos. Arnold & Sons, Doncaster.

RESTORATION OF DOORWAY, BRISTOL CATHEDRAL SCHOOL.—The restoration of the Early English doorway leading to the Bristol Cathedral School has just been completed. The restoration has been carried out by Messrs. W. H. Cowlin & Sons. Mr. Pearson was the architect for the restoration.

NEWCASTLE CITY LUNATIC ASYLUM, COX LODGE.—The foundation-stone of the extension of the Newcastle City Lunatic Asylum at Gosforth was laid by the Mayor (Ald. W. H. Stephenson) on the 31st ult. Mr. J. W. Dyson, of Newcastle, is the architect, whose designs were selected in competition. The new Asylum is being erected for male patients, and will accommodate 361, and when completed the whole of the present Asylum will be adapted for women patients, the total accommodation being then about 800. The new buildings are arranged in two-storied blocks, the various floors forming wards for the different classes of patients. The walls externally will be of stone, and the roofs covered with best Bangor slates. The patients' blocks will have the floor between ground and first floor of Mark Fawcett & Co.'s system of fire-proof flooring, and the ceiling to the upper floors will be formed of concrete. The floors and woodwork generally will be pitch-pine. The lavatories, bath-rooms, &c., will be lined with glazed bricks. All the staircases will be of Yorkshire stone. The heating and ventilation will be on the "Plenum" system, and all apparatus is to be in the subways below the buildings, so that no part can be interfered with by patients. There will be fire main services both inside and outside the buildings. In addition to the patients' blocks, there is a complete administrative department, comprising committee-rooms, offices, kitchens, stores, dining-hall, workshops, bakery, visitors' room, club-rooms for attendants, and apartments for the medical and other officers. There is also a new laundry, isolation-hospital, recreation-hall, chapel, superintendent's residence, head attendant's house, ten cottages for attendants, and entrance-lodge. The buildings will be lighted by electric light, and the motive power required for driving machinery, ventilating fans, &c., will be electric. A complete electric plant is to be provided. The foundations,

and the erection of the main buildings to the ground floor line have been carried out by Mr. John Ferguson, of Newcastle, and the contract for the superstructure and auxiliary buildings has been let to Mr. Walter Scott, of Newcastle, who is now proceeding with the work. The heating and ventilation will be carried out by Messrs. Ashwell & Nesbit, of Newcastle and London; the electric light fittings, wires, and cables by the Corlett Electrical Engineering Company; and the sanitary fittings throughout are to be of Doulton's manufacture.

PROPOSED NEW CONSERVATORY FOR WOLVERHAMPTON PARK.—It is proposed to erect a new conservatory in the park at Wolverhampton, from designs by Messrs. Thomas H. Mawson & Gibson, park architects, of Windermere. The building is designed to figure as a park pavilion externally, therefore the brick and terra-cotta pilasters and the brick porches are intended to give the building a more substantial appearance than horticultural buildings in general; and in order to obvjate the difficulty and expense of roof repairing and painting.

CHURCH SCHOOLS, WEDNESBURY.—The cornerstone of a new girls' department in connexion with St. Bartholomew's Church Schools, Church-hill, Wednesbury, was laid recently. The new buildings are being erected adjacent to the old schools, and, with alterations which are contemplated to the latter, accommodation will be provided for upwards of 300 children. The work is in the hands of Messrs. Morriss & Atkinson, Birmingham, whilst Mr. J. H. Gibbons, of Birmingham, is the architect.

SUNDAY SCHOOLS, WOLVERHAMPTON. — The memorial stones have just been laid of the new Primitive Methodist Sunday Schools, situated at the rear of the Dudley-road Chapel, Wolverhampton. The architect is Mr. M. Johnson, of Wolverhampton. and the contract for building has been let to Mr. J. Jones. The new building will consist of a main room 58 ft. in length, 30 ft. in width, with four class-rooms, opening by folding wooden partitions into the main room.

POST OFFICE, GALASHIELS.—The new Post Office in Galashiels was opened on the 2nd inst. The new building has cost upwards of 5,000*l.*, and occupies a central position at the head of Channel-street. The building is of white sandstone. The public room on the ground floor is 39 ft. by 22 ft., with the postmaster's room, telephone, silent room, and letter reception rooms at the side. In the back division, lighted from the roof, are the sorting-room, 49 ft. by 34 ft., the telegraph and telephone, male clerks' and message boys' rooms, telegraph stores, battery and linesmen's rooms. The first floor to the front is to be reserved for future extension. The architect was Mr. Robertson, of Her Majesty's Board of Works.

ST. JOHN'S CATHEDRAL, NEWFOUNDLAND.—The *Evening Herald* (Newfoundland) gives a description of the reopening of the choir and transepts of the cathedral dedicated to St. John the Baptist, on June 29. It will be remembered the building was almost entirely destroyed by fire in 1892. Triumphal arches were erected on the occasion of the reconsecration in the thoroughfares leading to the cathedral. The work generally has been carried out under the personal supervision of Mr. Wills (who acted as clerk of works of the original building), and from the designs of Messrs. George Gilbert Scott and John Oldrid Scott, of London. Most of the internal fittings are special gifts. The oak eagle lectern is a reproduction of the burnt one. The carved oak bishop's throne, sedilia, and stalls, as well as the lectern, are being carried out by Messrs. Harry Hems & Sons, of Exeter, but have not yet arrived. There is also a new pulpit and altar.

SANITARY AND ENGINEERING NEWS.

A SANITARY EXHIBIT AT KING'S COLLEGE.—During the British Medical Congress, held at King's College last week, a comprehensive exhibit of sanitary appliances was shown by Mr. John Jones, of Chelsea. Among the exhibits we noticed the patent drain and pipe stopper, which consists of a bag which is inflated by a small hand-pump, and quickly filled with air under sufficient pressure to dam the drain, and prevent any escape of water. It can be folded and carried in a small space, and can be placed in syphons, gulleys, &c., where other stoppers are difficult to insert. The expanding screw stopper, fitted with indicator, enables the fall of a drain to be accurately gauged. The hand smoke-generating machine, for testing soil-pipes, is also useful and seems simple in action. The air-tight manhole covers shown by Mr. Jones, and to which the medal of the Sanitary Institute has been awarded, is an improvement on the ordinary patterns. It consists of an inner and outer cover. The inner cover is arched, which allows the moisture from the drain to rise to the apex of the arch, where it condenses and runs down to the groove prepared for its reception, into which the cover fits, thus forming an air-tight seal. The top or outer cover is flat with the surface of the ground, and also fits into another groove filled with any suitable material, and held in place by screws in the usual way. Other forms of double-seal manhole-covers are shown. An invention in mica valve-inlets is also shown, which appears to work satisfactorily. The valves are hung as a pair of folding-doors, and by this means the direct weight of the valves has not to be overcome when they open, as each part of the valve has merely to turn on its pivot, while the inclination of the axis is sufficient to ensure the closing of the valves on a return current of foul air; and it also gives a full area of air-space. The patent channel-bends for use in inspection-chambers to prevent splashing are a novelty, and are bridged across the outlet, thus preventing the deposit of sewage on the benchings and walls of the chamber. The "Sydney Syphonic Cistern" is on new lines; a double coil of syphons is used, one larger than the other, but oval-shape in section, with ¾-in. pipe from the larger of the two coils; on this pipe a push-valve opens into the down-pipe, and, by pressing in this valve, the action is at once started, the difference in size of the pipes causing a powerful flush.

SHREWSBURY WATER SUPPLY AND MAIN DRAINAGE.—At special meetings of the Town Council held last week it was decided to carry out the schemes for the new water supply of the borough, and the interception and disposal of the sewage, prepared by Messrs. John Taylor, Sons, & Santo Crimp, of Westminster. The water scheme involves the construction of a large impounding reservoir, together with the necessary filter-beds, pumping-station, service reservoir, and necessary mains for obtaining a Severn supply. As regards the main drainage, it is proposed to carry out a complete system of intercepting sewers which will discharge at a central pumping-station, from which the sewage will be pumped to land for purification. The schemes are estimated to cost about 85,000*l.*, exclusive of the cost of land.

MISCELLANEOUS.

SWISS BUILDING-MATERIAL TESTING STATION.—According to a recent report of the United States Consul at Zurich, the object of this institution, a branch attached to the Federal Polytechnic School at Zurich, is to ascertain the general utility of building-materials, especially as to their cohesive power, in compliance with requests made by authorities or private persons. In addition thereto, it makes of its own accord examinations and tests of the same nature which, in a general economic and scientific way, are of public interest. Every kind of building and constructive material is tested, but particularly natural and artificial building-stones, cements, chains, driving-belts, hemp and wire cables, metals, as well as completed constructions, parts of machinery, or bridges, to ascertain the quality of materials, their elasticity, and absolute strength. The station furnishes also chemical analyses of these materials. The institution is placed under the direct supervision of the Federal School Board. The tests of building timbers are: Indication of run of fibres, number and condition of knots in longitudinal cuts, determination of the average width of annual layers, and modification in width thereof in a latitudinal direction of the structure, composition of the lineal layers, as well as the average proportion between spring and fall woods; determination of the degree of moisture, the density at the time of delivery, and after being subjected to a temperature of 221 deg. Fahr., the unit volume weight; determination of elasticity and resistance to torsion, compression, trimming, and flexion. The quantity of material and the kind of preparation necessary for the trial pieces are prescribed in special regulations. Each shipment of wood is to be as far as possible accompanied by a description of the exact denomination of the kind of wood, age and time of felling; origin and condition of land on which grown, if on north or south slopes, elevation above the sea, if from the interior of the forest or outside borders, &c.; geological condition of the growing land, &c. The results of the tests made are recorded, and a copy of the record in the form of a certificate given, stating the results of the test, without mentioning the purpose the material in question is to be used for. Results of tests will be published in the general Reports of the station, if the interested party does not object thereto. The superintendent of the station is also from time to time to publish special reports on the results of special interest.

NOTICE OF REMOVAL.—The Plastic Marble Co. has removed from 8, Berners-street to 13, Walbrook, E.C.

YARROW CONVALESCENT HOME.—Messrs. W. G. Cannon & Sons ask us to state that they carried out the gas-fittings, electric bells, and speaking-tubes in the above-named buildings, illustrated in our pages last week.

THE BATH STONE FIRMS.—Mr. James Saunders Randell, of Bath, has been elected a director of the Bath Stone Firms, in the place of the late Mr. James Stone. Mr. Randell was the senior partner of Randell & Saunders, the well-known stone firm, of Corsham, and has a practical knowledge of the trade, and a wide experience, which will probably be of much service to the company.

NEWCASTLE ANTIQUARIES' SOCIETY.—At the last monthly meeting of the Newcastle Society of Antiquaries, held in the Castle, Newcastle, Dr. Hodgkin gave the interim report of the Northumberland Excavation Committee, which showed that the operations of this season at Æsica had been very successful, though the resources of the fund had been slender. The Committee, acting on the advice of Mr. Mackay, decided to entrust the superintendence of the excavations to Mr. Thos. Smith, of Sunniside, who lived within a mile of Great Chesters, and who was often over the ground with Dr. Bruce. In the eight weeks during which the excavation had been in progress, the guard chamber to the east of the sunken gateway, the whole line of the western wall, and its junction with the wall at the north-west corner of the camp, had been laid bare. The most interesting feature in the camp as yet disclosed was the magnificent western gateway, which had been in Roman times so effectually walled up that both Dr. Bruce and Captain Maclauchlan even doubted its existence. It was now clear, however, that there was a gateway here, with that massive masonry which they had learned to associate with the works of the Antonine Emperors. This gateway had been destroyed, doubtless at the time of some incursion of the barbarians. Later on, possibly about the time of Severus, another had been erected some eight or ten feet above the original one. The primary and secondary strata of the camp were here marked with unusual distinctness by the pivot holes of the gates which were found at the two different lines mentioned above. There had been apparently another destruction of the camp and another rebuilding with small stones and very inferior workmanship, and at this third occupation of the camp the Roman troops, by this time probably dwindled to a mere handful, had despaired of being able to defend this gateway at all, and had, therefore, entirely walled it up. A great many small objects were found, such as glass, crockery, iron, and coins dating to the time of Constantine.

ART-NOTES FROM FRANCE.—M. Paul Roussel, pupil of MM. Cavelier, Barras, and Coutan, has obtained the Prix de Rome in sculpture, and M. Patouillard, a pupil of M. Ginain, has obtained it in architecture. —— The Chamber called "des Illustres" at the Palace of the Capitol at Toulouse has been decorated with panel paintings by M. Paul Pujol, one of the panels representing the life of the painter Lafage, who lived at Toulouse, another a symbolical subject representing "La Muse Populaire enseignant la Musique aux Toulousains."——A new Lycée for girls is to be built in the Rue Sevigné, next door to the Hôtel Carnavalet, to be called the "Lycée Victor Hugo."—— At Monétay (Allier) the remains of a Roman temple of probably about the date of Nero have been discovered. Some courses of large stones have been found, and the shaft of a fluted column of the Corinthian order, a carved capital, and a statue.—— It is reported that the Duc d'Aumale intends to purchase the Château d'Amboise.——An art exhibition at Rouen is announced to be in preparation for May, 1896.—M. Casimir Echernier, Honorary President of the Architectural Union of Lyons, has just died at that place, at the age of seventy-seven. He was born at Albi, and studied at the École des Beaux-Arts at Lyons, where he afterwards practised during the whole of his life. He was created a long time since Chevalier of the Legion of Honour, and received, in 1886, the gold medal for "Architecture Privée," given by the Société Centrale. He was one of the founders of the "Caisse de Defense Mutuelle." Besides his numerous buildings, he was known by a number of essays and papers published in the Transactions of the Société Academique of Lyons. He was author of a very able and learned work, under the title of "Remarques Historiques sur l'Architecture Lyonnaise aux 4 derniers Siècles."——The death is also announced of M. René Ménard, architect, of Nantes, a member of the Société Centrale.

YORKSHIRE ARCHÆOLOGICAL SOCIETY EXCURSION.—The twenty-ninth annual excursion of this society took place on the 1st inst. The members journeyed by train to Pickering and drove in waggonettes and char-à-bancs, to Lastingham, where a tour of the church and its surroundings was made, Mr. St. John Hope acting as guide. Mr. Hope began his description by stating that every syllable written in the programme respecting the history of the church was entirely wrong. From plans which had been drawn by Mr. Bilson, of Hull, and which, he said, were the first plans drawn which professed to be accurate, he pointed out some interesting particulars. Lastingham was one of the earliest centres in the establishment of Christianity in the North of England. Looking at the structure itself, they would ascertain the real story. Bede gave a full and elaborate account which suggested that it had been built in the seventh century. The structure mentioned in that account had nothing to do with the present structure, as it occupied a site eastward in the present churchyard, and the only evidence to connect them were two stones which had since been discovered. The foundation of the church was traced to the advent, in 1078, of monks from Whitby, who came with the intention of establishing here a monastery, and there could be no question that they began this present building on the system they usually adopted in building monastic churches. There was testimony to show that the monks only stayed ten years, afterwards going to York, and the parishioners took possession of the building in its unfinished form, and converted it into a parish church. There was evidence that the tower was carried to a certain height and then stopped. In the fifteenth century further building was done, and the rest of the work was of our own time. The documental history, he said, was absolute and fixed;

and as to the close resemblance which the building bore to a Corinthian chapel, he stated that the Roman architecture was imported from abroad. At the time the church was built the builders must have been men accustomed to Saxon work—men who received their education long before the Conquest, in the days of Edward the Confessor. So it was that we had so many survivals of the Corinthian capital. The company then inspected the crypt, which contains several interesting fragments, including Saxon and Mediæval stones. The return journey was *viâ* Appleton-le-Moors and Sinnington, Pickering being reached by three o'clock. Little over one hour remained for the visit to the castle and church. Mr. Hope conducted the party round the ruins, pointing out the architectural features associated with the towers, the curtain-wall, the entrance, &c. A move was then made to the church, where Mr. Hope briefly sketched its history. Its plan comprises western tower, nave, south porch, north aisles, transepts, and well-developed chancels, and the date of the original Norman church is fixed at 1130. Dealing with the effigies, supposed to be two of the Bruces, Mr. Hope gave his opinion that these were unquestionably of the Roecliffe family; but these were unique in one feature—viz., that the chain-mail in which they were clad was "double-linked" mail, and was, so far as he knew, unique, in that the mail was generally of single-link pattern. The Vicar afterwards gave a brief account of the frescoes, which concluded the programme.

LEGAL.

LONDON BUILDING ACT, 1894:

SECTIONS 59 AND 73.

AT Lambeth Police-court, on the 16th ult., before Mr. Denman, Mr. T. Sloman, of Albany-road, Camberwell, was summoned by Mr. Bernard Dicksee, District Surveyor for East Newington, for non-compliance with a notice for irregularity requiring him to carry up the party-walls 15 in. above the roofs as required by Sec. 59 (1), and to corbel out the party-walls 4 in. beyond the eaves or cornices as required by Sec. 73 (1).

Mr. T. Seager Berry, instructed by the County Council, appeared for the District Surveyor, and Mr. R. A. Kingsbury for the defendant.

Mr. Dicksee gave evidence to the effect that, on January 10 last, notice was given him by the defendant of the erection of five new dwelling-houses, Nos. 26 to 34 (even), Bagshot-street, Newington, and that in the building of them certain irregularities were committed, and on May 10 he served upon the defendant a statutory notice (copy of which was produced) to remedy the same. Some of these irregularities had not been amended, and consequently the summons was issued. Since the commencement of the proceedings the defendant had amended certain irregularities in the back eaves mentioned in the notice, by corbelling out the party-walls as required by witness, but otherwise nothing had been done. A diagram showing how the work had been executed, and how the Act required it to be executed, was put in and explained to the magistrate by witness. The party-walls had been carried up 13 to 13½ inches above the upper surface of the slates, instead of 15 in. as required by Sec. 59 (1). The irregularity complained of in the eaves was that a wooden fascia or gutter-board which had been nailed to the rafter feet, projected beyond the face of the brickwork; the iron gutter was screwed to this fascia, and a fillet of wood was nailed to the face of the fascia to support the underside of the gutter: this fascia was prohibited by Sec. 73 (1), unless the party-wall was corbelled out 4 in. beyond the eaves: defendant had roofed in and practically finished the buildings since the irregularity had been pointed out to him.

Cross-examined, witness said that he had measured the party-parapets from the upper surface of the slates to the point where the parapet became less than 8½ in. in thickness, the minimum thickness allowed by Sec. 59, (1), the height above the rafters was 14½ in. to 15 in., the slate battens measured ¾ in., and the three thicknesses of slates ¾ in., making together 1½ in. Asked whether he was willing to treat the fascia as part of the roof if it were completely covered with metal he acquiesced, provided that the rules applicable to roofs were complied with so as to remove the fascia from the operation of Sec. 73 as a projection. Defendant then agreed to amend the eaves in this manner.

Mr. Kingsbury argued that the District Surveyor had measured the parapet in the wrong manner. He should have measured from the rafters, not from the slates. He quoted Sec. 61 in support of this argument. In this section the roof was required to be covered with slate, tile, metal, or other incombustible material, therefore the roof existed before it was covered, and the roof must be taken to mean the rafters, not the covering of the roof. This practice had always been followed in the past.

Mr. Denman said one object of a new Act was to abolish old practices.

Mr. Berry pointed out that by Schedule 1, Preliminary Rule 1. every building was required to be enclosed by walls, and said nobody could contend that the walls were not part of the building; similarly the roof was to be covered with slates or like material, but the roof was not complete without the covering: he contended the District Surveyor's method of measuring was correct.

Mr. Denman said the expression "above this roof" in the section must be taken to mean above the roof as a whole, and not above any particular part of the roof. The defendant was not entitled to dig down into the roof to find a point from which to measure. The measurement must, therefore, be taken above the surface of the slates, but the deficiency was small, and he, therefore, thought some arrangement might be made with the District Surveyor.

Mr. Berry pointed out that the District Surveyor had no discretion in the matter; the section laid down a minimum, and that minimum had not been complied with.

Mr. Denman finally decided to adjourn the case for fourteen days in order that the defendant might alter the eaves as arranged, during which time he would further consider the question of the party-walls.

At the adjourned hearing on the 30th ult., Mr. Berry said that the defendant had covered the wooden fascias with zinc, but that was not sufficient to satisfy the District Surveyor, as they should also have been set back flush with the face of the brickwork, whereas they still projected, and consequently were contrary to the section.

Mr. Kingsbury objected that the defendant had done all that he undertook to do. He only agreed to cover the fascias with incombustible material.

Mr. Denman said that he understood that the defendant had made an offer to do certain work which the District Surveyor had accepted, and he (Mr. Denman) had not taken particular notice of what had been agreed upon; but if the District Surveyor was not satisfied, and the matter had to be argued out afresh, a new summons had better be taken out, as the work was now different from what it was at the first hearing.

Mr. Berry argued that the case really stood where it was, as the notice of irregularity had not been complied with. With regard to the party-walls there was another point, which was not gone into at the first hearing; there were in the rear of the houses four water-closets in pairs; in these the party-walls were not carried up above the roofs at all; there were absolutely no party parapets; the statutory notice and summons would cover this irregularity.

Mr. Kingsbury objected that this matter was not mentioned at the previous hearing, and therefore ought not to be gone into: besides which the roofs of the water-closets contained no woodwork whatever, and therefore no party-wall was necessary.

Mr. Berry dissented.

Mr. Denman thought that as these particular party-walls were not mentioned at the first hearing they should be made the subject of a fresh summons or the case further adjourned.

Ultimately Mr. Berry said that, having regard to a remark that the magistrate had made at the first hearing as to the small amount of deficiency in the height of the party-walls of the main buildings, he would be willing, if the magistrate would give for further guidance a definite ruling of the subject, to withdraw the present summons without prejudice to the question of the fascias and the party-walls to the water-closet buildings.

Mr. Kingsbury said that he had several witnesses to prove that the custom for the last thirty years had been to measure from the rafters.

Mr. Denman said that he had considered the matter, and he was prepared to hold that the measurement must be taken from the upper surface of the roof as contended by the District Surveyor.

The summons was then allowed to be withdrawn, defendant to pay 1*l.* 1s. costs to the District Surveyor, it being understood that, if necessary, a fresh summons would be taken out for the irregularities in the fascias and the party-walls to the water-closets.

BUILDING DISPUTE AT SOUTHEND:

ACTION IN THE CHANCERY DIVISION,

THE case of the Mayor of Southend *v.* Ramuz came before Mr. Justice Romer in the Chancery Division last week, it being an action brought by the Corporation of Southend-on-Sea, which is the Urban Sanitary Authority for the borough, against Mr. F. F. Ramuz, to obtain an injunction restraining the defendant from permitting premises erected by him at Southend to be occupied until they had been completed according to deposited plans, and in conformity with the by-laws of the borough. It appeared that the defendant from time to time deposited plans of an arcade of shops to the east of High-street, all of which were disapproved, and he then made alterations in the plans so as to provide for the air space at the rear required by the by-laws. The contention of the Corporation was that some of the shops had been let and occupied in such a manner as not to comply with the by-laws, inasmuch as they were completely cut off from all communication with the buildings in the rear, and separately occupied as lock-up shops without any air space at the rear, though, if occupied with the rear premises (in one occupation), the requirements as to rear space would have been complied with. The plaintiffs also complained that if the other shops were let with the rooms at the rear and this accompanying air-space cut off, the defendant would be able to evade the by-laws.

After hearing evidence and the arguments of counsel, his Lordship, in giving judgment, said that the injunction was only asked for so far as related to the parts of the building which were at present unoccupied, for the lessees of the occupied parts were not before the Court, and he could make no order affecting them in their absence. At the time the action was brought the building had not been completed in accordance with the deposited plans; but it was admitted, on behalf of the plaintiffs in the course of the trial, that immediately before the trial the building had been so completed, and, therefore, no injunction could now be granted with respect to the unoccupied parts, merely on the ground that the building was not completed. It remained for him (his Lordship) to consider on what other grounds the injunction could be asked for. Two, and two only, had in substance been urged on behalf of the plaintiffs—the one was, that the defendant was threatening and intending, with regard to the unoccupied parts, to allow them to be occupied so as to infringe No. 18 of the additional by-laws. It was difficult to ascertain exactly how the plaintiffs put their case under that head, beyond that they said that defendant was going to let each room at present unoccupied as a separate shop, and that, though the building, treated as a whole, had, in the rear, a sufficient area or open space as provided by By-law No. 54, for each room, if treated as a separate shop (which is a "domestic building" within the meaning of that by-law according to the definition) would not have a sufficient area or open space. There was no general by-law which prevented a building with several rooms erected in accordance with deposited plans from being let or occupied in parts—each room by itself. The only by-law the plaintiffs relied on on that part of the case was the additional By-law No. 18; but that spoke of a building being altered in such a way that the same as altered would if at first so constructed, have contravened some other by-law. So far as concerned the unoccupied parts of the building then before the Court, the defendant had not altered them at all from the deposited plans; nor could he hold on the evidence that the defendant was going to alter them so as to infringe Rule 18, or in any way. He could not see his way to grant an injunction, because the defendant had let on lease the occupied parts as separate shops, restraining the defendant from allowing the unoccupied parts, as they stood, to be occupied at all. The remaining ground relied on by the plaintiffs was based on By-law 97, it being said that that by-law, by implication, provided that no part of a building should be occupied before the expiration of the seven days therein mentioned, and (as the facts were) that the parts of that building already let were so occupied. He could not see how on that ground he could grant an injunction restraining the defendant from permitting the parts of the building then remaining unoccupied from being occupied at all. Having regard to all the circumstances of the case he should dismiss the action, but without costs.

Mr. Wm. Willis, Q.C., and Mr. C. H. Smith were counsel for the plaintiffs; and Mr. Hopkinson, Q.C., and Mr. Dunham for the defendant.

NEGLECT TO GIVE NOTICE.

MESSRS. T. WHITE & SON, of 52, Fairfield-road, Bow, E., were summoned at the North London Police Court on the 1st inst. by Mr. A. Payne, District Surveyor of East Hackney, South, and North Bow, for commencing works in the rear of 114, Cadogan-terrace, without the notice required by Section 145 of the London Building Act. The defendant admitted the offence, but said it took place owing to a misunderstanding with his employer, the occupier of the house.

The magistrate said that the notice ought to be given, and imposed a fine of 2s. 6d. a day from the time when the notice should have been given, and allowed 12s. 6d. costs.

INFRINGEMENT OF THE BIRMINGHAM BUILDING BY-LAWS.

AT the Birmingham Police-court, on the 2nd inst., John Pitt, of Chetwynd-road, was charged that he did unlawfully, in erecting a new building in a proposed new street leading out of Dudley-road, not cause the walls enclosing such building to be properly bonded and solidly put together with good mortar, compounded of good lime and clean sharp sand, contrary to the by-laws. The Town Clerk (Mr. Horatio Brevitt) prosecuted, and Mr. R. C. E. Plumptre defended. The defendant had erected a row of ten houses, and entered into a contract with Eli Bird, a bricklayer, for the latter to do the labour for 198*l.*, whilst the defendant was to provide the materials, including the mortar. John Weale, the building inspector for the Corporation, visited the building, and took away a sample of the mortar in use. This was submitted to the Borough Analyst (Mr. E. W. T. Jones), who gave a certificate that the material was unworthy of the name of mortar, and was simply mud. This would only hold the bricks together temporarily, and in time would give off an unwholesome odour.—Defendant was fined 5*l.* and 4*l.* 9s. costs.

MEETINGS.

MONDAY, AUGUST 12, to SATURDAY, AUGUST 17.

Architectural Association. — Annual Excursion to Cheltenham and neighbourhood.

COMPETITIONS, CONTRACTS, AND PUBLIC APPOINTMENT.

COMPETITIONS.

Nature of Work.	By whom Advertised.	Premiums.	Designs to be delivered.
Schools and Hall, St. Thomas' Church, Derby	Committee	Not stated	Aug. 31
Board Room and Offices, &c. Stow-hill	Newport (Mon.) Un.	30*l.* 15*s.*	Aug. 28

CONTRACTS.

Nature of Work or Materials.	By whom Required.	Architect, Surveyor, or Engineer.	Tenders to be delivered.
Drainage Works	Uttoxeter Union	J. Collyer	Aug. 13
Walling, &c. Mill Hill, Dalton	Huddersfield Corp.	*Official*	do.
Clee Hill Granite (100 tons), Maidenhead	Cookham Union	do.	do.
Cottage, Undy, Magor, Mon.	G. W. R. Co.	do.	do.
*Two Houses, for Coast Guards, Drove End, Lincs		do.	do.
Pipe Sewer, Nookland, Lancs	The Admiralty	Fulwood U.D.C.	do.
Private Improvement Works, Moxon-terrace	Fulwood U.D.C.	Myres & Co.	Aug. 14
Station Buildings, Godshill and Whitwell, Isle of Wight	Halifax Corporation	E. R. S. Escott	do.
Extension of Home for Nurses	Newport, &c. Railway	Westwood & Winby	do.
Press House, &c. Roch Mills	Bristol General Hosp.	Crisp & Oatley	do.
*Stables, Vauxhall Bridge-road	Rochdale Corporation	S. S. Platt	do.
Four Houses, Crimble Bank, Slaithwaite, Yorks		A. A. Kemp	do.
School and House, Llangoed, Anglesey		A. Shaw	do.
Sewering and Draining, Walnwright-grove, &c.		R. G. Davies	do.
Additions, &c. to Schools, Tong Park and Wood Bottom	Garston (Lancs) U.D.C.	F. W. Bowden	Aug. 15
Cast-iron Pipes (552 yards)	Baildon (Yorks) Sch. Board	W. & J. B. Bailey	do.
Setts, Flags, &c.	Southport Corp.	*Official*	do.
Alterations, &c. to Business Premises, Commercial-street	Dewsbury Corp.	H. C. Marks	Aug. 16
Iron and Steel Work, Whitworth-street, &c.	Batley Co-op. Society, Lim.	H. B. Buckley	do.
Standpipes, &c.	Manchester Technical Instruction Com.	W. Windsor	do.
Cast-iron Pipes (113 tons), &c.	Abertillery (Mon) U.D.C	T. Rees	Aug. 17
Granite Macadam (400 tons)	do.	do.	do.
Gasholder	Standish (Lancs) U.D.C.	*Official*	do.
School, Cowbridge, Glam.	Cleethorpes (Lincs) Gas Co.	E. J. Brockway	do.
Earthenware Pipe Sewer, &c. Barrow		Robt. Williams	do.
Pipe Sewers, &c.	Clitheroe R.D.C.	A. E. Preston	do.
*100 feet of Dry Areas	Turton (Lancs) U.D.C.	J. Parkinson	Aug. 19
House, Walling, &c. at Cemetery, near Wakefield	Central London Sick Asylum District	W. S. Cross	do.
Footpaths, Kerbing, &c.	Horbury U.D.C.	C. R. Spencer	do.
*Sewerage Works	Methley (Yorks) U.D.C.	T. Thompson	do.
Sewerage Works (1,044 yards), Urquhart-road and Queen's Links	Erith U.D.C	G. Chatterton	do.
Church, Cwm Park, Treorky, Glam.	Aberdeen T.C.	W Dyack	do.
Sewerage Works and Cast-iron Pipes		J. W. Rodgers	do.
Sewers (three contracts), Egremont, Cheshire	Gorton (Lancs) U.D.C.	Lomax and Lomax	Aug. 20
Schools	Wallasey U.D.C	A. Salmon	do.
	Harrington (Cumbd.) School Board	W. G. Scott	do.
Schools, New Mill, Tring	Trustees	W. Huckvale	Aug. 21

CONTRACTS—*Continued.*

Nature of Work or Materials.	By whom Required.	Architect, Surveyor, or Engineer.	Tenders to be delivered.
Water Mains, Watling-street and Wrekin-road	Wellington (Salop) D.C.	*Official*	Aug. 21
Drainage Works at the Workhouse	Chichester Union	do.	do.
Sewerage Works, Broughton Burn	Edinburgh T.C.	do.	Aug. 22
Factory, Birtley	Northern Iron & Tin-plate Soc. Lim.		do.
Eleven Cottages, Blaengarw, Wales	Directors Co-op. Soc.	J. Rees	do.
*Painting Works, Workhouse	Stepney Union	G. E. Holman	do.
*Construction of Reservoir	Wokingham R.D.C.	R. W. Hamilton	Aug. 23
Storage Reservoir (6,000,000 gals.), Marske, Yorks	Redcar U.D.C.	E. W. Lyall	do.
Laundry Buildings	Caistor (Lincs) Un.	*Official*	do.
Reservoir, Forge Side, Mon.	Blaenavon (Mon.) U.D.C.	T. D Steele	Aug. 24
Houses, Dromin Station	G. N. Ry. Co (Ireland)	W. H. Mills	do.
Schools, Marsh	Lancaster Sch. Bd	R. Walker	do.
*Public Baths and Laundry	Commrs. for Baths and Washhouses, Deptford	T. Dinwiddy	do.
*Technical and Art Schools	Leicester Corp.	Everard & Pick	Aug. 27
*Trial Borings	Nottingham Corp.	D. M. S. Gaskin	Aug. 29
Additions to S hool, Bettw., Wales	Llandilofawr (U.D.) Sch. Bd.	H. Herbert	Aug. 30
*Wagon and Carts	Borough of West Ham	L. Angell	Aug 31
Sewering, Channelling, &c. several streets and roads	Swindon New Town U.D.C.	H. J. Hamp	Sept. 2
*Excavating and Levelling Site for Asylum	Hertfordshire Lunatic Asylum	G. T. Hine	do.
C. I. Pipes (2,750 yards)	Keighley Corp.	*Official*	Sept. 3
Intercepting Sewer in the River Worth, near Grove Mills	Keighley Corp.	W. H. Hopkinson	do.
*Underground Convenience	Limehouse Bd of Wks.	*Official*	Sept. 9
*Mortuary, Coroner's Court, &c.	do.	do.	Sept. 10
Drainage Works, Llanbradach, Wales	Wingfield Bldg. Club	T. R Phillips	No date
Waterworks Fittings	Castlebar (Ireland) Un	C. Mulvany	do.
Chapel and School, Gregory-Boulevard, Nottingham	Trustees of Methodist Free Church	F. W. Dixon	do.
Two Houses, St. Columb's Wells, Derry, Ireland	C. Bradley	J. G. Ferguson & Sons	do.
Engine-shed Buildings, Coachford, Cork	Cork and Muskerry By. Co.	*Official*	do.
*Broken Granite	Eton R.D.C.	do.	do.
*Factory, Crewkerne		H. Hall	do.
Cottage, Murtle, Aberdeen		Matthews & Mackenzie	do.
*Baptist Church and Schools, Woolwich		G. Baines	do.
Two Houses, Brookfield-road, Rushden, Northants		H. Adnitt	do.
Parochial School, Kinmare, Ireland	Rev. G. M'Cutchan		do.
National School, Kinsale, Ireland	Rev. E. Gibbings		do.
Sewer Pipes, Pudsey, Mirfield, Yorks	Garforth Bros.		do.
Storage Reservoir	Spittal (Northd.) Waterworks Prop.		do.

PUBLIC APPOINTMENT.

Nature of Appointment.	By whom Advertised.	Salary.	Applications to be in.
*Engineering Assistant	Carlisle U.S.A.	2*l.* 2*s.*	No date

Those marked with an asterisk (*) are advertised in this Number. ***Contracts, pp.*** iv., vi., *and* viii. ***Public Appointment, pp.*** xvi. *and* xviii.

RECENT PATENTS:

ABSTRACTS OF SPECIFICATIONS.

12,319.—Ventilator: *J. Evans and others.*—An apparatus for producing forced draught in the wind-sails of steamers, or in ventilating-shafts in hospitals and the like, by means of a jet of compressed air or steam. It consists of a cylindrical air-chamber enclosing a coil of pipe ending in a suitable nozzle, through which the jet of steam or compressed air is driven. A coil of pipe surrounds the outside of the chamber, and is terminated by an inlet into the interior, through which hot air is passed to preserve the heat of the steam. The nozzle-end of the inner coil is so arranged that the air may be drawn in by the draught which the jet causes, the whole terminating in a shaft for conveying the cool draught wherever desired.

12,559.—Ventilator: *L. Milnes.*—Relates to an air-inlet ventilator for disinfecting drains. A valve, combined with a trough or receptacle for holding a perforated cake of solid disinfecting material, is placed at the fresh air-inlet, so that the air entering the drain passes through the perforations and becomes impregnated with the deodorant.

16,262.—Windows: *G. Austin.*—Deals with a window-fastener, consisting of a screwed socket fixed to the meeting-rail of the upper sash, and a tube in the other meeting-rail carrying a screwed bolt, the rear end of which is formed to engage with a key which serves to screw the bolt into the socket on the upper sash, thereby drawing the two sashes tightly together.

7,968.—Paving Blocks: *T. Willmot and another.*—Relates to an apparatus for applying a coating of tar or other liquid to paving blocks, &c. Consists of a perforated or skeleton grating, curved into and through a tank or vessel so that the curve or shoot will in greater part be below the liquid contents of such tank, and thus cause any solid passing through the shoot to be immersed in the liquid. The discharging end of the trough is provided with resilent scrapers or smoothers to remove excess liquid from the solid discharge.

14,561.—Ventilator: *E. How and another.*—A ventilator formed in two parts. The outer part consisting of a frame or box is built in an opening on the outside of the wall of a room with a grid and sloping plate on its exterior. A baffle-plate is fixed behind these, arranged to check any inward rush of air and turn it downwards. The inner part of the ventilator comprises a frame, having a grid and two flaps made of silk, which are secured along their upper edges, and prevent any sudden draught from entering the room.

NEW APPLICATIONS FOR LETTERS PATENT.

July 22.—13,906, W. Metherell, Mitre Cramp.—13,924, R. Stone, Manufacture of Fireproof, Waterproof, and Non-Corrosive Paint.—13,954, A. Urban, Door-closing Apparatus.—13,962, H. Lake, Machines for Sharpening and Setting Saws.

July 23.—13,973, S. Schryver, Paints and Pigments.—13,988, J. Martin, Doors, &c.—14,048, J. Fisher, Window-fastener.

July 24.—14,119, C. Raleigh, Boring Bits for Rock Drills.—14,126, D. Hilton, Metal Laths.

July 25.—14,148, J. Cochran, Saws for Sawing Stone, &c.—14,171, D. Bostel, Preventing the Freezing of Water in Service-pipes, Cisterns, &c.—14,181, E. Wanke and J. Hellige, Casement-fastenings.—14,187, A. Hirsch, Manufacture of Vitreous Artificial Stone.—14,205, H. Koerner, Cowls or Caps for Ventilating Shafts, Flues, &c.

July 26.—14,235, H. Jones, Chimney Cowl, &c.—14,259, R. Freeman and T. Rackliff, Moulding Presses for Bricks, Tiles, &c.—14,280, G. Leman and W. Williams, Brick-burning Kilns.

July 27.—14,294, S. Learoyd, Firegrates.—14,319, C. Zapp, Window-catches or Fasteners.—14,341, E. Wanke and J. Hellige, Holder for Casement Windows.

PROVISIONAL SPECIFICATIONS ACCEPTED.

11,571, W. Snelgrove and R. Goyne, Water-pipes.—11,688, A. Lundberg and others, Kilns for Burning Portland Cement, &c.—11,907, E. Fletcher and S. Carran, Fasteners for Windows.—12,919, W. Barraclough and A. Rhodes, Fireplaces.—12,920, D. Keith, Window Sash Frames.—13,293, D. Keith, Window Sash Frames.—13,357, S. Barwise, Preventing Bursting of Lead or other Pipes through the Action of Frost.—13,522, W. Illingworth, Ovens or Kilns for Firing Pottery, &c.

COMPLETE SPECIFICATIONS ACCEPTED.

(Open to Opposition for Two Months.)

15,840, W. Garland and W. Shears, Raising, Lowering, and Securing Window-sashes.—17,499, F. Woodford, Chimney-cowls.—18,500, G. Thornborough and J. Wilks, Movable Partitions.—7,334, W. Bailey, Bevelling Glass.—10,061, J. Shrawder, Pneumatic Door Checks and Closers.—10,237, J. Murphy and others, Brackets for Ladders.—11,930. H. Sadin, Employment of Schist in the Manufacture of Bricks for Building Purposes.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

July 24.—By *Rushworth & Stevens:* F., g.r. 60*l.*, Lawnter., Hanwell, reversion in 84 yrs., 1,390*l.*; f., g.r. 12*l.*, Lawnter., reversion in 96 yrs., 275*l.*; 4, 5, and 6, Lawn-ter., f., r. 59*l.*, 645*l.*; a freehold house and shop, Norwood-green, Middlesex, r. 22*l.*, 480*l.*; "Squire's Cottages," f., r. 128*l.* 12*s.*, 1,155*l.*; a plot of bldg. land, Station-rd., Hanwell, f., 160*l.*—By *Reynolds & Eason:* 49, Seaside-rd., Eastbourne, Sussex, f., r. 8*l.*, 1,720*l.*; 1 to 15 (odd), Bourne-st., f., r. 315*l.*, 6,205*l.*; a plot of bldg. land, Ceylon-pl., f., 1,060*l.*; "The Lawn," Willingdon, Sussex, and 1½ acres, f., 3,000*l.*; enclosures of land, 47 a. 3 r. 16 p., f., 4,080*l.*; two freehold cottages, r. 16*l.* 16*s.*, 200*l.*; enclosures of land, 100 a. 0 r. 27 p., f., 7,375*l.*; "Meachant's" farmhouse and enclosures of land, 7 a. 0 r. 31 p., f., 1,130*l.*; two cottages and enclosure of land, 0 a. 2 r. 18 p., f., r. 32*l.* 6*s.*, 810*l.*; "Danns" farmhouse and enclosures of land, 10 a. 2 r. 25 p., f., r. 104*l.*, 2,950*l.*

July 25.—By *M. Lieli & Son:* 125, St. Dunstan's-rd., Mile End, f., r. 36*l.* 8*s.*, 465*l.*—By *Robins, Snell, & Gore:* 15, Davenant-rd., Holloway, u.t. 63 yrs., g.r. 6*l.* 10*s.*, r. 36*l.*, 310*l.*—By *W. Weston:* 12, Windsor-gardens, Paddington, u.t. 50 yrs., g.r. 4*l.*, r. 26*l.*, 170*l.*; 39 and 41, Bravington-rd., u.t. 83 yrs., g.r. 14*l.*, r. 72*l.*, sold privately.—By *H. J. Bliss & Sons:* F.g.r. of 5*l.*, Church-rd., Homerton, reversion in 66 yrs., 135*l.*; f.g.r. of 6*l.*, Church-rd., reversion in 58½ yrs., 155*l.*; f.g r. of 19*l.* 10*s.*, Buxton-st., Mile End, reversion in 52 yrs, 540*l.*; f.g.r. of 9*l.* 15*s.*, Buxton-st., &c., reversion in 52 yrs., 320*l.*; f.g.r. of 13*l.* 10*s.*, Forest-st., Forest Gate, reversion in 64 yrs., 330*l.*; f.g.r. of 3*l.* 10*s.*, Forest-st., reversion in 43 yrs., 85*l.*; f.g.r. of 15*l.*, Blurton-rd., Clapton, reversion in 74 yrs., 400*l.*; 88, Weymouth-ter., Hackney, f., r. 32*l.* 10*s.*, 315*l.*; 20 to 34 (even), Beaconsfield-rd., Walthamstow, f., r. 117*l.* 2*s.*, 1,175*l.*; two plots of building land, Harold-rd., Woodford, f., 105*l.*—By *Farebrother, Ellis, Clark, & Co.:* Rowley Green House, High Barnet, 1 a. 0 r. 30 p., c., 650*l.*—By *Debenham, Tewson, & Co.:* "Gunnersbury Lodge," Gunnersbury, 5 a. 1 r. 12 p., f., 10,000*l.*; 338, Old-st., St. Luke's, and 1 and 2, Charlotte-st., f., r. 100*l.*, 1,600*l.*—By *C. C. & T. Moore:* 31, 32, and 33, Baythorne-st., Mile End, u.t. 70 yrs., g.r. 4*l.* 10*s.*, r. 117*l.*, 800*l.*; 98, Earlham Grove, Forest Gate, f., 475*l.*; 50, Gold-st., Stepney, u.t. 31½ yrs., g.r. 3*l.*, 100*l.*; 196, 198, 200, 206, 208 to 220 (even), Glyn-rd., Clapham, u.t. 82 yrs, g.r. 55*l.*, 1,630*l.*; 6 to 11 and 42 to 47, Blackstone-rd., Hackney, u.t. 52 yrs., g.r. 60*l.*, 2,300*l.*; 145 to 150, Angel-rd., Edmonton, u.t. 83 yrs., g.r. 21*l.*, 390*l.*; 60, Holly Pk.-rd., New Southgate, u.t. 85 yrs., g.r. 6*l.*, 90*l.*—By *Newbon & Co.:* 17, 19 and 21, Protheroe-rd., Fulham, u.t. 82 yrs., g.r. 15*l.*, 490*l.*; 9, 11, 13 and 15, Ashbrook-rd., Holloway, u.t. 79 yrs., g.r. 13*l.*, 1,070*l.*; 29, Sumatra-rd., Hampstead, u.t. 87 yrs., g.r. 6*l.*, r. 33*l.*, 280*l.*; 30, Mill-lane, u.t. 89 yrs., g.r. 9*l.*, r. 45*l.*, 400*l.*; 6, Latchford-gardens, Willesden, u.t. 83 yrs., g.r. 4*l.* 15*s.*, 115*l.*; 12, Mornington-cres., Hampstead-rd., f., r. 75*l.*, 1,000*l.*—By *Stimson & Sons:* 34, 36, and 38, Palace-sq., Norwood, u.t. 88¼ yrs., g.r. 24*l.* 3*s.*, e.r. 150*l.*, 490*l.*; 253 and 255, Crystal Palace-rd., Dulwich, u.t. 82 yrs., g.r. 14*l.*, 340*l.*; 11, Claude-villas, u.t. 80 yrs., g.r. 6*l.*, e.r. 32*l.*, 215*l.*; 34, Sutherland-sq., Walworth, u.t. 47½ yrs., g.r. 5*l.* 10*s.*, e.r. 50*l.*, 450*l.*; 18 and 19, William-st., Marylebone, u.t. 20 yrs., g.r. 4*l.* 5*s.*, r. 80*l.*, 250*l.*; 9 and 10, St. Peter's-rd., Mile End, u.t. 35 yrs., g.r. 3*l.* 5*s.* 10*d.*, r. 64*l.*, 590*l.*; 205 to 211 (odd), Uxbridge-rd., Ealing Dean, f., r. 116*l.*, 2,120*l.*; "Grosvenor House," Uxbridge-rd., u.t. 73½ yrs., g.r. 7*l.*, r. 35*l.*, 320*l.*; 1 to 6, Grosvenor-ter., f., r. 117*l.*, 865*l.*; 84, 86, 88, 90, Balham-grove, Balham, f., r. 114*l.* 8*s.*, 1,000*l.*; 5, 7, 13 to 27 (odd), Picket's-st., f., r. 293*l.* 16*s.*, 2,520*l.*; 2, 3, and 4, Mount Villas, Sydenham, f., r. 90*l.*, 1,050*l.*; 49, Alexandra-rd., Croydon, f., r. 30*l.*, 375*l.*; i.g.r. of 25*l*

Langley-ter., Beckenham., u t. 50¼ yrs., g.r. 10s., 370*l.*—By *R. A. Enright:* 612, 614, 616, 618, Woolwich-rd, Charlton, u.t. 88 yrs., g r. 14*l.* 8s., 895*l.*; 270, 272, 280, 282, Woolwich-rd., u.t. 34 yrs., g.r. 12*l.*, 375*l.*; 6, Troughton-rd., u.t. 82 yrs., g.r. 4*l.*, 155*l.*; 26, 28, and 30, Reidhaven-rd., Plumstead, u.t. 72 yrs., g.r. 9*l.*, 352*l.*; 150, Sandy Hill-rd., u t. 18 yrs., g.r. 2*l.* 2s., r. 35*l.*, 290*l.*

JULY 26.—By *G. A. Wilkinson & Son:* 30, Abbeygardens, St. John's Wood, u.t. 43¼ yrs., g.r. 8*l.*, 250*l.*—By *H. C. Hicks:* 5 and 7, Hetherington-rd , Clapham, u.t. 71 yrs., g.r. 16*l.*, r. 66*l.*, 520*l.*; 6, Chelsham-rd, u.t. 67 yrs., g.r. 8*l.*, r. 42*l.*, 320*l.*; 14 and 16, Bellefield-rd., Stockwell, u.t. 69½ yrs., g.r. 7*l.*, 565*l.*—By *C. & H. White:* 100, Camberwell New-rd., Camberwell, u.t. 6 yrs., g.r. 8*l.*, r. 45*l.*, 55*l.*; 1, Kellett-rd., Brixton, u.t. 78 yrs., g.r. 7*l.* 7s., r. 40*l.*, 370*l.*—By *Field & Sons:* 30 to 36 (even), Dawlish-rd., South Lambeth, f., r. 114*l.* 8s , 1,310*l.*; 2, Broadhinton-rd., Clapham, u.t. 48 yrs., g.r. 4*l.* 10s., r. 28*l.*, 240*l.*; 62 to 76 (even), Flockton-st., Bermondsey, f., r. 131*l.* 6s., 920*l.*; 10, Jacob-st. and 1 to 5, Caroline-crt., f., r. 74*l.* 2s., 325*l.*; 12, St. Aubyn's-rd., Norwood, u.t. 64 yrs., g.r. 8*l.*, r. 40*l.*, 245*l.*; 125, 127, 129, and 131, Weston-st., Bermondsey, u.t. 18¾ yrs , g.r. 15*l.*, r. 140*l.* 8s., 370*l.*—By *Reynolds & Eason:* "The Railway Tavern" public-house, Northfleet, Kent, f., r. 60*l.*, 1,540*l.*; f.g.r. of 21*l.*, Star-st., West Ham, reversion in 69 yrs., 530*l.*; f.g.r. of 28*l.*, Star-st., reversion in 70 yrs., 700*l.*; f.g.r. of 14*l.*, Shirley-st., reversion in 69 yrs., 350*l.*; f.g.r. of 14*l.*, Wilberforce-st., reversion in 70 yrs., 350*l.*; 39, 41, and 43, Warmington-st., f., r. 34*l.*, 465*l.*; 28, Webb-st., f., r. 8*l.*, 110*l.*; an enclosure of bldg. land, Warmington-st., f., r. 8*l.*, 750*l.*; 52, Swan-lane, Rotherhithe, f., r. 18*l.* 4s., 145*l.*; 83, 85, 87, 93, and 95, Brunswick-st., Hackney, f., r. 149*l.* 10s., 1,475*l.*; 200, High-st., Shoreditch, f., r. 110*l.*, subject to a rent-charge of 7*l.*, 2,020*l.*—By *Baker & Sons:* 3, 4, and 5, James-st., St. Luke's, u.t. 46¾ yrs., g.r. 17*l.*, r. 160*l.*, 1,850*l.*; 72, Westmoreland-pl., City-rd., u.t. 8 yrs., g.r. 6*l* 6s., 75*l.*; two enclosures of land, High-rd., Swanley, Kent, 40 a. 3 r. 0 p., f., 2,800*l.*; two enclosures of land, Hextable-rd., 18 a. 2 r. 21 p., f., 1,340*l.*; 3 a. 1 r. 8 p., Birchwood Farm, f., 530*l.*; two enclosures of land, 4 a. 2 r. 8 p., f., 470*l.*; proposed rd., an enclosure of land, 6 a. 0 r. 24 p., f., 360*l.*; enclosure of land, Londonrd.. 48 a. 3 r. 33 p., f., 2,165*l.*; Middle or Home Farm, Crookenhill, Kent, 57 acres, f., 2,500*l.*—By *Woods & Snelling:* 44 to 58 (even), High-st., Eltham, Kent, f., r. 220*l.*, 2,350*l.*; 121 and 123, Wells-rd., Sydenham, f., r. 44*l.* 4s., 650*l.*; 123 and 125, Upper Fore-st., Edmonton, f., r. 50*l.* 14s., 520*l.*; 6 to 11, Eaton-pl., f., r. 70*l.* 4s., 410*l.*; 35, Blue Anchor-lane, Peckham, f., r. 11*l.* 14s., 70*l.*; 56, 58 and 60, Savona-st., Battersea, f., r. 63*l.* 14s., 410*l.*; 46 and 45, Queen-st., Gravesend, f., r. 50*l.*, 895*l.*; "Talgarth," Hadlow-rd., Sidcup, f., r. 45*l.*, 760*l.*; "The Wintons," "Marchmont," "Sidcup Villa," and "Highden," Hatherley-rd., f., r. 245*l.*, 3,950*l.*; "Arrandoon," "Barcaldine," "Linstead," and "Bertram House," Granville-rd., f., r. 210*l.*, 3,300*l.*—By *Robert Reid:* 219, Borough High-street, Southwark, f.. r. 90*l.*, 1,150*l.*; 12, Little Trinity-lane, City of London, f., r. 150*l.*, 3,050*l.*; 34, Albemarle-st., Piccadilly, f., r. 325*l.*, 8,075*l.*; No. 68, New Bond-st., City leasehold, u.t. 74 yrs., g.r. 16*l.* 15s. 10d., r. 340*l.*, 8,750*l.*; i.g.r. of 36*l.*, Gloucester-ter., Hyde-pk., u.t. 41 yrs., g.r. nil, 660*l.*; i.g.r. of 30*l.* 10s., Leinster-gardens, u.t. 55 yrs., g.r. 5*l.* 10s., 510*l.*; i.g.r. of 36*l.*, Dudley-pl., Paddington. u.t. 44½ yrs., g.r. 3*l.*, 590*l.*; i.g.r. of 68*l.*, Upper Westbourne-st., u.t. 47 yrs., g.r. 2*l.*, 1,305*l.*; i.g.r. of 30*l.*, Blomfield-rd., u.t. 46 yrs., g.r. 2*l.*, 555*l.*; i.g.r. of 80*l.*, Elgin-av., Maida Vale, u.t. 64 yrs., g.r. 24*l.*, 1,195*l.*; i.g.r. of 88*l.*, Cambridge-av., Kilburn, u.t. 63 yrs., g.r. 4*l.*, 1,710*l.*; i.g.r. of 90*l.*, Belsize-pk., Hampstead, u.t. 56 yrs., g.r. 15*l.*, 1,535*l.*; 4, 5, and 6, Upper Montagu-st., Marylebone, u.t. 8 yrs., g.r. nil, r. 123*l.* (one-seventh of a moiety only). 50*l.*; a similar one-seventh of a moiety, 60*l.*: 26, Portland-st., Regent's-pk., u.t. 5 yrs., g.r. 10*l.*, r. 50*l.*, 80*l.*

JULY 29.—By *G. Pearce & Sons:* 74, St. Paul-st., Islington, u.t. 31 yrs., g.r. 6*l.* 6s., r. 34*l.*, 242*l.*; 2 and 4, Mortimer-rd., De Beauvoir Town, u.t. 19½ yrs., g.r. 9*l.*, r. 94*l.* 18s., 265*l.*; 28, Hyde-rd., Hoxton, u.t. 41½ yrs., g.r. 6*l.* 6s., r. 38*l.*, 260*l.*; 2, Wimborne-st., u.t. 6½ yrs., g.r. 4*l.*, r. 41*l.* 12s., 45*l.*; 29, Wimborne-st., u.t. 9½ yrs., g.r. 4*l.*, r. 41*l.* 12s., 61*l.*; 57, Loanda-st., Haggerston, u.t. 23½ yrs., g.r. 3*l.*, r. 26*l.*, 125*l.*—By *Sales & Wiltshire:* 11, Comerford-rd., Brockley, f., e.r. 38*l.*, 480*l.*—By *G. B. Hilliard & Son:* "Down Hall," Rayleigh, Essex, and 53 a. 1 r. 28 p , f., 1,350*l.*; eight enclosures of land adjoining, 56 a. 2 r. 17 p., f., 880*l.*; "Gallows Mead" and "White Post Field," High-rd., 15 a. 1 r. 24 p., f., 565*l.*; Harbutt's Farm, 79 a. 0 r. 20 p., f., 1,100*l.*; eight enclosures of land adjoining, 185 a. 0 r. 10 p., f., 1,710*l.*; eight freehold cottages, Down Hall-rd., r. 44*l.* 10s., 970*l.*—By *Norman & Son:* No. 1 Wharf, Irongate Wharf-rd., Paddington, and goodwill, lease 17 yrs., r. 250*l.*, 280*l.*; plot of land, Greenford Green, Middlesex, with house and other erections thereon, lease 9 yrs., r. 40*l.*, 85*l.*—By *Beard & Son:* 203½, Bethnal Green-rd., Bethnal Green, u.t. 76 yrs., g.r. 24*l.*, 500*l.*; "Leggatt's Farm," Green-st., Shenley, Herts, 105 acres, f. 3,700*l.*; 25, Denbigh-ter., Bayswater, and 18, Denbigh-mews, u.t. 49 yrs., g.r. 8*l.*, r. 70*l.*, 485*l.*—By *C. W. Davies:* 51, 53, and 55, Wicklow-st., King's-cross, u.t. 14 yrs., g.r. 7*l.*, r. 91*l.*, 305*l.*; 57 to 67 (odd), Wicklow st., u.t. 32½ yrs., g.r. 15*l.*, r. 180*l.* 14s., 1,055*l.*—By *Horne, Son, & Eve:sfield:* "The Three Compasses," public-house, Queen-st., Tottenham, f., r. 45*l.*, 1,260*l.*; Nos. 18 and 28, Hampstead-rd., f., r. 145*l.*, 3,200*l.*; No. 280, Euston-rd., f., r. 175*l.*, 4,000*l.*—By *Stimson & Sons:* F.g.r. of 75*l.*, Berwick-st., &c., Oxford-st., reversion in 70 yrs., 1,920*l.*; 85 and 86, Berwick-st., f., r. 187*l.* 10s., 3,400*l.*; f.g.r. of 50*l.*, Portland Mews, Marylebone, reversion in 70 yrs., 940*l.*; i.g.r. of 245*l.*, Liverpool-rd., &c., Islington, u.t. 11½ yrs., g.r. 100*l.*, 1,060*l.*; 5 and 6, Thornbury-ter., Clapham, u.t. 86 yrs., g.r. 10*l.*, r. 74*l.* 10s., 845*l.*—By *Green & Son:* 82 and 92, Oglander-rd., Dulwich, u.t. 80½ yrs., g.r. 13*l.*, r. 62*l.*, 540*l.*; 10, 14 and 20, Muschamp-rd., u.t. 80 yrs., g.r. 21*l.*, r. 78*l.*, 740*l.*; 73, 75 and 85, Bellenden-rd., u.t. 81 yrs., g.r. 18*l.* 18s., r. 77*l.*, 640*l.*; 10, 11, 12, and 14, Oakhurst-grove, u.t. 81 yrs., g.r. 37*l.* 7s., r. 144*l.*, 1,025*l.*; 30 and 32, Oakhurst-grove, u.t. 82½ yrs., g.r. 20*l.*, r. 72*l.*, 500*l.*; 65 and 67, Oakhurst-grove, u.t. 83 yrs., g.r. 20*l.*, r. 72*l.*, 475*l.*; 69, Oakhurst-grove, u.t. 83 yrs., g.r. 10*l.*, r. 39*l.*, 270*l.*; 1, 8, 19, 21, and 23, Ferris-rd., u.t. 81 yrs., g.r. 31*l.* 10s., r. 143*l.* 4s., 825*l.*; 18, 20, 22, 50 and 52, Tyrrell-rd., u.t. 81 yrs., g.r. 35*l.* 17s., r. 110*l.* 4s., 930*l.*; 42, 44 to 49, and 51, Warwick-rd., West Ham, u.t. 85 yrs., g.r. 44*l.*, r. 217*l.* 14s., 1,145*l.*; 27, Stork-rd., Stratford, u.t. 85 yrs., g.r. 5*l.* 5s., r. 22*l.* 2s., 110*l.*; 9 to 23 (odd), and 27, Studley-rd., Forest Gate, u.t. 87 yrs., g.r. 58*l.* 10s., r. 261*l.* 16s., 1,310*l.*

JULY 30.—By *E. Robins & Hine:* 42, 44, 46, and 48, Bedford Hill, Balham, u.t. 69 yrs., g.r. 28*l.*, r. 103*l.*, 805*l.*; 1, 2, and 3, Alexandra-ter., u.t. 69 yrs., g.r. 3s., 555*l.*; i.g.r. of 21*l.*, Alexandra ter., u.t. 69 yrs., g.r. 1s., 360*l.*; i g.r. of 26*l.*, Albert-ter., u.t. 69 yrs., g.r. nil., 450*l.*; 22, Cintra Pk., Norwood, u.t. 70 yrs., g.r. 6*l.* 10s., r. 45*l.*, 405*l.*: 71, 73, 79, 83, 85, 87, and 89, Granville Pk , Blackheath, u.t. 47½ yrs., g.r. 70*l.*, r. 316*l.*, 2,000*l.*; 3, 5, and 6, St. Stephen's-ter., Lewisham, u.t. 66¾ yrs., g.r. 24*l.* 15s., r. 109*l.*, 920*l.*—By *Ventom, Bull, & Cooper:* 36, Peel-st., Kensington, f., r. 36*l.* 8s., 360*l.*; 6, Chadwick-st., Westminster, f., r. 20*l.*, 300*l.*; "The Finsbury Polytechnic," Appold-st., Finsbury, f., 8,000*l.*—By *J. Hibbard & Son:* 8, Wolsey-rd., Mildmay Pk., u.t. 54 yrs., g.r. 5*l.* 5s., e.r. 32*l.*, 285*l.*—By *Alfred Richa ds:* 53, Oseney-cres., Camden Town, u.t. 53¾ yrs., g.r. 9*l.* 9s., r. 52*l.* 10s., 420*l.*; the Girl's Orphan Home, Union-row, Tottenham, area 9,500 ft., f., 1,255*l.*; two plots of bldg. land, Selbourne-rd., Wood Green, f., 50*l.*—By *Debenham, Tewson, & Co.:* Dale-street Farm, Mill Hill, Hendon, 69 a. 0 r. 3 p., f., 2,100*l.*; "The Bald-Faced Stag" public-house, Edgware-rd., and 24 a. 3 r. 7 p., f., r. 215*l.* 10s., 5,000*l.*—By *Chinnock, Galsworthy, & Co.:* F.g.r. of 86*l.*, North End-rd., Fulham, reversion in 77 yrs., 2,625*l.*; f.g.r. of 4*l.* 10s., Walham-yd., reversion in 77 yrs., 120*l.*; f g.r. of 76*l.* 10s., Eustace-rd., reversion in 77 yrs., 1,950*l.*; f.g.r. of 43*l.* 9s., Armadale-rd., reversion in 77 yrs., 1,150*l.*; f.g.r. of 78*l.*, Halford-rd., reversion in 77 yrs., 2,055*l.*; f.g.r. of 126*l.* 16s., Anselm-rd., reversion in 77 yrs., 3,390*l.*; f.g.r. of 34*l.* 15s., Knivett-rd., reversion in 77 yrs., 1,010*l.*; 104, 106, and 108, High-st , f., r. 40*l.*, 950*l.*—By *Humbert, Son, & Flint:* F.g.r. of 39*l.*, East-hill, Wandsworth, reversion in 95 yrs., 1,195*l.*; f.g r. of 308*l.*, Huntsmoor-rd., reversion in 95 yrs., 8,505*l.*; f.g.r. of 193*l.* 18s., Geddes-rd., reversion in 95 yrs., 5,145*l.*; 44, Westbourne Pk. Villas, Paddington, f., r. 75*l.*, 1,005*l.*; 80, 82, and 84, Westbourne Pk. Villas, u.t. 41 yrs , g.r. 22*l.*, r. 140*l.*, 1,015*l.*; f.g r. of 8*l.* 8s., Ram's-s., Wandsworth, reversion in 27 yrs.. 245*l.*; f.g.r. of 5*l.* 4s., Douglas-st., Deptford, reversion in 56 yrs., 130*l.*; f.g.r. of 2*l.* 8s., Douglas-st., reversion in 58 yrs., 75*l.*

JULY 31.—By *John Bott:* 102, Croxted-rd., Dulwich, u.t. 68 yrs., g.r. 8*l.* 5s., r. 50*l.*, 555*l.*—By *C. H. Brown:* 19, Moreton-ter., Belgravia, u.t. 34½ yrs , g.r. 8*l.*, r. 53*l.*, 445*l.*—By *C. Caney:* 56 and 90, Smyrks-rd., Old Kent-rd., u.t. 25 yrs., g.r. 5*l.* 15s., r. 61*l.* 2s., 270*l.*—By *Flood & Sons:* 171, Seymour-pl., Marylebone, u.t. 59 yrs , g.r. 18*l.*, r. 111*l.* 16s., 620*l.*; 122 and 124, Seymour-pl., u.t. 58 yrs., g.r. 40*l.*, r. 200*l.*, 1,750*l.*—By *J. G. Hammond, junr.:* 106, Gosterwood-st., Deptford, u.t. 71 yrs., g.r. 5*l.*, r. 31*l.* 4s., 230*l.*; 2, Oxford-ter., Leytonstone, u.t. 55 yrs., g.r. 6*l.* 6s., r. 25*l.*, 170*l.*—By *F. Poole:* 115, Hoe-st., Walthamstow, f., r. 40*l.*, 530*l.*; 119, Hoe-st., f., sold privately.

[*Contractions used in these Lists.*—F.g.r. .or freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; e.r. for estimated rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; yd. for yard, &c.]

PRICES CURRENT OF MATERIALS.

TIMBER.			TIMBER (*continued*).		
Greenheart, B.G.	ton	8/0/0	0/0/0	Satin, Porto Rico	0/0/6	0/1/6
Teak, E.I.	load	10/0/0	16/0/0	Walnut, Italian	0/0/3½	0/0/7
Sequoia, U.S. ft.	cu	1/10	2/2			
Ash, Canada	load	2/15/0	4/0/0	METALS.		
Birch, do.		2/5/0	3/10/0	Iron—Pig, in Scotland	ton	2/5/2½	0/0/0
Elm, do.		3/10/0	4/15/0	Bar, Welsh, in London		5/12/6	5/15/0
Fir, Dantsic, &c.		2/15/0	3/10/0	Do. do. at works in Wales		5/2/6	5/5/0
Oak, do.		2/15/0	4/15/0	Do. Staffordshire, in London		6/0/0	6/10/0
Canada		6/0/0	7/10/0	COPPER—British cake and ingot		49/0/0	49/10/0
Pine, Canada red		0/0/0	0/0/0	Best selected		50/0/0	50/10/0
Do. Yellow		2/15/0	5/0/0	Sheets, strong		55/0/0	0/0/0
Lath, Dantsic, fath		4/10/0	5/10/0	Chili bars		45/18/9	46/3/6
St. Petersburg		5/0/0	6/10/0	YELLOW METAL	lb	0/0/4½	0/0/4¾
Wainscot, Riga, &c., log		4/10/0	6/10/0	LEAD—Pig, Spanish	ton	11/0/0	11/2/6
Odessa, crown		4/10/0	6/10/0	English com. brands		11/1/3	11/3/9
Deals, Finland 2nd & 1st std	100	7/0/0	8/10/0	Sheet, English, 6 lbs. per sq. ft. and upwards		12/0/0	0/0/0
Do. 4th & 3rd		7/0/0	8/0/0	Pipe		12/10/0	0/0/0
Do. Riga		7/0/0	8/0/0	ZINC—English sheet	ton	18/10/0	0/0/0
St. Petersburg, 1st yellow		9/10/0	12/0/0	Vieille Montagne		19/0/0	0/0/0
Do. 2nd yellow		7/10/0	9/0/0	TIN—Straits		64/2/6	64/12/6
Do. white		8/0/0	9/10/0	Australian		65/2/6	65/12/0
Swedish		7/0/0	15/10/0	English Ingots		68/10/0	69/0/0
White Sea		7/10/0	15/0/0	Banca		66/0/0	66/10/0
Canada, Pine 1st		22/0/0	24/0/0	Billiton		65/10/0	66/0/0
Do. do. 2nd		16/10/0	17/10/0				
Do. do. 3rd, &c.		8/5/0	10/10/0	OILS.			
Do. Spruce, 1st		9/0/0	10/10/0	Linseed	ton	21/0/0	21/7/6
Do. do. 3rd and 2nd		6/10/0	7/10/0	Cocoanut, Cochin		24/0/0	0/0/0
New Brunswick		6/0/0	7/0/0	Do. Ceylon		22/5/0	0/0/0
Battens, all kinds		5/0/0	21/0/0	Palm, Lagos		22/5/0	0/0/0
Flooring boards, sq., 1 in. prep. 1st		0/9/6	0/14/6	Rapeseed, English pale		22/5/0	22/10/0
Do. 2nd		0/6/6	0/11/6	Do. brown		20/15/0	21/0/0
Other qualities		0/4/6	0/7/6	Cottonseed ref.		18/0/0	18/10/0
Cedar, Cuba	ft.	/3	/4	Oleine		20/10/0	21/10/0
Honduras, &c.		/3	/4½	Lubricating, U.S.		5/9/0	8/3/0
Mahogany, Cuba		/3	/6	Do. black		4/6/0	6/6/0
St. Domingo, cargo av.		/3	1/0	TAR—Stockholm	barrel	1/0/0	1/0/6
Mexican do. do.		/3	/4	Archangel		0/15/6	0/0/0
Tobasco do. do.		/3½	/6				
Honduras do. do.		/3½	/5½				
Box, Turkey	ton	4/0/0	15/0/0				
Rose, Rio		7/0/0	16/0/0				
Bahia		6/0/0	15/0/0				
Satin, St. Domingo		0/0/5	0/1/0				

TENDERS.

[Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 10 *a.m. on Thursdays.*]

ALFRETON.—Accepted for the erection of school buildings, Kirkstead, for the Pinxton School Board. Mr. Arthur King, architect, Pinxton, Alfreton :—

Building.—H. Goodall, Pinxton	£1,392 0
Carpentry.—Brassington & Bingham, Pinxton	298 14
Plumbing, &c.—C. Shaw, Riddings	180 0

ARTHINGWORTH.—For reconstruction of drainage scheme to Arthingworth Hall, Northamptonshire, for Colonel Porcelli Cust. Mr. J. T. Lawrence, architect, Leighton Buzzard, Beds. :—

A. Jewel	£250	Smith Bros., Northampton*	£185
J. Smith	240	* Accepted.	

BOSTON (Lincs.).—For the erection of school buildings, Fydell, crescent, for the School Board. Mr. James Rowell, architect, Boston, Lincs. Quantities by the architect :—

J. Leafe	£4,273	W. Greenfield	£4,080
Pinder & Son	4,270	S. Sherwin	3,975
J. Lucas	4,150	H. W. Parker *	3,899
Bradley	4,093	* Accepted.	

[Architect's estimate, £4,025.]
[All of Boston.]

BRIGHTON.—For the erection of residence, Hollingdean-yard, for the Town Council. Mr. F. J. C. May, C.E., Town Hall, Brighton :—

W. A. Field & Co.	£575	J. Longley & Co., Crawley*	£549
Sattin & Evershed	550	* Accepted.	

BURTON-ON-TRENT.—For alterations to school-buildings, Guild-street, for the U.D. School Board. Mr. R. Churchill, architect, St. Paul's-square, Burton-on-Trent. Quantities by architect :—

Hodges	£360 0 0	Stevenson	£320 0 0
Edwards	355 2 0	Kershaw (accepted)	308 5 6
Stephens	322 0 0		

[All of Burton-on-Trent.]

CARDIFF.—For the erection of warehouses and stables off Working-street, Cardiff, for Messrs. Noah Rees & Son, from plans prepared by Messrs. J. P. Jones, Richards, & Budgen, architects, 18, St. Mary-street, Cardiff :—

E Turner & Sons	£4,765 0 0	James Perkins	£4 435 0 0
Latty & Co.	4,738 0 0	James Allan	4,421 0 0
D. J. Davis	4,600 0 0	G. Griffiths	4,354 19 0
Wm. Thomas & Co.	4,575 0 0	E. F. Richards & Co.	4 333 8 4
Joseph Thomas	4 511 0 0	S. Shepton & Son *	4,215 0 0
Knox & Wells	4,495 0 0	* Accepted.	

[Architects' estimate, £4,386.]

CROYDON.—For fitting up additional stabling, for Messrs. Carter, Paterson, at their depôt, Handcroft-road, Croydon. Messrs. William Eve & Son, architects, 10, Union-court, Old Broad-street, E.C. :—

Joselyne & Young	£169	F. & H. F. Higgs, Loughborough Junction*	£138
Harris & Wardrop	167	* Accepted.	
Page	163		

DINEDOR (Herefordshire).—Accepted for the erection of a new school to accommodate fifty children. Mr. G. H. Godsell, architect, Hereford :—

Stone Bros., Fownhope	£500

ELGIN (N.B.)—For the execution of road works, High-street, for the Town Council. Mr. D. Mackintosh, C.E., Burgh Surveyor, Elgin :—

Geo. Shanks	£1,042 11 9	Alex. Mackay	£826 6 0
Thos. Maclean	869 16 8	James Leith, Aberdeen*	722 4 3
		* Accepted.	

ENFIELD.—For the erection of a pair of semi-detached residences, situate on Windmill-hill, Enfield, for Dr. Jones. Mr. T. J. Hill, architect, Court House, Enfield, N. :—

A. Porter	£2,498	Hampden	£2,324
H. Knight & Son	2,412		

GUILDFORD.—For erecting a cattle-market, for the Corporation. Mr. F. T. Maltby, Borough Surveyor :—

Contract No. 1.—Building, &c.

Higlett & Hammond	£8,245 0	P. Peters & Son	£6 887 0
Beinam & Co.	7,695 0	P. C. May, Guildford *	6 550 0
James Longley	7,180 0	W. Cunliffe	5,875 17

Contract No. 2.—Ironwork.

E. & J. Raybould	£2,850 0 0	Jukes, Coulson, Stokes, & Co.	£2,107 0 0
Braithwaite & Kirk	2 556 6 3	John Ellis	1 989 11 0
W. Weeks & Sons	2 522 0 0	Glover & Son	1,875 19 0
Pierson & Co.	2,322 0 6	Hill & Smith	1,729 1 10
The London and Lancashire Engineering Co.	2,243 8 2	Dyne, Steel, & Son	1,725 13 10
Weyman & Hitchcock	2,150 0 0	E. C. & J. Keay	1,686 0 0
The Blackwall Galvanising Iron Co.	2,121 10 0	William Lucy & Co., Oxford*	1,675 0 0
		John B. Hollon & Co.	1,518 0 0
		* Accepted.	

[Borough Surveyor's estimate, £8,000.]

HOUNSLOW.—For the erection of fire-station, Heston, for the Urban District Council. Mr. W. A. Davies, Surveyor, Town Hall, Hounslow :—

J. Billins	£366 0	G. Danells	£315 0
W. Hogbin	351 10	W. H. Brown, Heston *	293 15
J. Hiscock	343 0	* Accepted.	

HULL.—For additions to St. Mary's Catholic Schools, Wilton-street. Messrs. Smith, Brodrick and Lowther, architects, Hull :—

Pattinson Bros.	£1,686 0 0	Colbey & Levittt	£762 0 0
F. Hall	810 0 0	T. Southern	750 0 0
T. Goates	804 0 0	D. Robinson	715 0 0
M. Harper	793 0 0	G. Jackson & Son, Hull*	705 10 0
J. Drury	779 0 0	* Accepted.	
G. L. Scott	770 19 11		

KIRTON-IN-LINDSEY (Lincs.).—For the erection of school buildings, for the School Board. Mr. William Waugh, architect, Glentworth, Lincoln :—

J. Jeffery & Son	£696 0 0	Wm. Colley, Owston Ferry, Bawtry*	£617 19 8
Thos. Waugh	624 0 0	* Accepted.	

LEICESTER.—For the erection of police-station, &c., Aylestone-Park, for the Corporation. Messrs. Harding & Topott, architects, Hotel-street, Leicester :—

Chambers	£1,922 10 0	Clarke & Garrett	£1,826 0 0
Riddet & Son	1,894 10 0	Hanson	1,794 0 0
Elliott	1,875 0 0	Gurney & Textall	1,791 6 10
Hewitt & Son	1,863 10 0	Bradshaw Bros.	1,779 0 0
Marston & Son	1,863 0 0	Chapman	1,760 0 0
Kellett & Son	1,850 0 0	H. Carrington, Newfoundpool *	1,747 7 6
Richardson & Son	1,845 0 0	* Accepted.	

LEIGHTON.—For additions to laundry at Linslade, for Mr. Henry Finch. Mr. J. T. Lawrence, architect, Leighton Buzzard, Beds. :—

Building.—Edwards Bros., Eggington.
Engineering.—W. Summerscales & Sons, Keighley.
Work to be measured and valued by the architect on completion.

LONDON.—For drainage to six houses, Praed-street, Paddington, for Mr. J. J. Robbins :—

Hoskis	£390	Scowen *	£360
Williamson	370	* Accepted.	

LONDON.—Accepted for reconstruction of drains, and new sanitary fittings throughout, at 3, Freegrove-road, Holloway. Mr. R. A. Caine, architect :—

Scowen	£175

LONDON.—For fitting up the upper floors of "C" building, Mitre-square, for Messrs. Kearley & Tonge. Messrs. Wm. Eve & Son, architects, 10, Union-court, E.C. :—

Davis	£939	Godfrey & Son	£487
Killby & Gayford	577	Harris & Wardrop, Lime-house*	425
Buckridge Bros.	499	* Accepted.	

LONDON.—Accepted for setting to boiler at Messrs. Kearley & Tonge's new factory, Durward-street, Whitechapel. Messrs. Wm. Eve & Son, architects, 10, Union-court, E.C. :—

S. Salt, 40, Turners-road, Limehouse	£210

LONDON.—For fitting up the upper floor of "B" building, Mitre-square, E.C., as offices for Messrs. Kearley & Tonge. Messrs. William Eve & Son, architects, 10, Union-court, E.C.:—

Killby & Gayford	£389	Buckeridge Bros.	£257
Godfrey & Son	312	F & H. F. Higgs, Loughborough Junction*	249
Harris & Wardrop	285		
Lascelles	264		

* Accepted.

LONDON.—Accepted for strengthening the floors of Messrs. Kearley & Tonge's "C" building, Mitre-square, E.C. Messrs. Wm. Eve & Son, architects, 10, Union-court, E.C.:—

Killby & Gayford, 87, Worship-street, E.C. £308

LONDON.—For the erection of additional stabling, for Messrs. Carter, Paterson, & Co., Ltd., at their depot, Mandrell-road, Brixton, under the superintendence of Messrs. William Eve & Son, 10, Union-court, Old Broad-street, E.C.:—

Harris & Wardrop	£1,239	Godfrey & Son	£983
Josolyne & Young	1,056	F. & H. F. Higgs, Loughborough Junction*	930
Taylor & Son	1,045		

* Accepted.

LONDON.—For alterations and additions to offices, 107, 108, and 109, Leadenhall-street, E.C., for Mr. I. T. Morton. Messrs. William Eve & Son, architects, 10, Union-court, Old Broad-street, E.C.:—

Mowlem & Co.	£2,780	Godfrey & Son	£2,187
Cubitt & Co.	2,475	F. & H. F. Higgs, Loughborough Junction*	1,947
Hall, Beddall, & Co.	2,430		
Harris & Wardrop	2,200		

* Accepted.

LONDON.—For building new recreation-room at Cloak-lane Police Station, for the City Corporation:—

Lidstone & Son	£259 10	Larke & Son	£188 0
Larter & Son	249 0	London & Co.*	183 0
Mason & Co.	220 0		

* Accepted.

LONDON.—For sundry works at the South-Eastern Hospital, New Cross, for the Managers of the Metropolitan Asylum District. Mr. Thos. W. Aldwinckle, Architect:—

Low-pressure Hot-water Warming Apparatus to Ward No. 3.

Fraser & Fraser, Ltd.	£833	J. & F. May	£670
J. & C. Christie	785	Benham & Sons	598
Kite & Co.	763	W. G. Cannon & Sons*	580

Re-modelling the Hot-water Supplies.

Kite & Co.	£850 0	Clarke & Sons	£664 10
W. G. Cannon & Sons	740 0	Benham & Sons, Ltd.	650 0
J. & F. May	697 0	Clements, Jeakes, & Co.*	628 10

* Accepted.

LONDON.—For sundry works at the Brook Hospital, Shooter's Hill, for the Managers of the Metropolitan Asylum District. Mr. T. W. Aldwinckle, Architect:—

Boundary Walls.

F. & H. F. Higgs	£4,925	C. Wall	£4,616
W. Johnson & Co., Ltd.	4,865	Shillitoe & Son*	4,100
H. Wall & Co.	4,820		

External Steam, Water, and Gas Mains.

Clement Jeakes & Co.	£3,595	C. Kinnell & Co.	£2,750
W. G. Cannon & Sons	3,105	Fraser & Fraser, Ltd.	2,538
Rosser & Russell, Ltd.	2,912	Strode & Co.	2,490
Z. D Berry & Sons	2,859	J. & C. Christie	2,400
Benham & Sons, Ltd.	2,796	J. & F. May	2,275
F. Clarke & Son	2,762	Sugg & Co., Ltd.*	2,213

External Fire Mains and Hydrants.

Benham & Sons, Ltd.	£983	Merryweather & Sons	£715
J. & C. Christie	825	Clarke & Sons	713
Strode & Co.	775	J. & F. May	699
Z. D. Berry & Sons	761	Shand, Mason, & Co.*	622

* Accepted.

MIDDLESBROUGH.—For the supply of sanitary pipes and bricks, for the Corporation. Mr. Frank Baker, C.E., Borough Engineer, Middlesbrough:—

Whinstone.

Commondale Co.	£0 8 6	Winn*	£0 7 6
Gribdale Co.	0 8 0	Ord & Maddison	0 7 9
Bradley Bros.*	0 7 6		

Pipes.

PRICE PER YARD DELIVERED.

	6-in.	9-in.	12-in.	15-in.	24-in.
	s. d.	s. d.	s. d.	s. d.	s. d.
Crossley	0 8½	1 1½	1 10½	2 9½	9 2
Hutchinson Bros.	0 9	1 4½	2 3	3 6	—
Commondale Co.*	0 7½	1 0	1 9½	2 10	9 6½
Eltringham Co.	0 8½	1 2½	2 6½	3 10	11 6

Bricks.

PRICE PER 1,000.

	Common Bricks.	Radiated Sewer Bricks.
Ashmore Pease & Co.	£1 3 6	—
Pump House Brick Works	—	£4 0 0
Eltringham Co.	—	4 5 0
Hutchinson Bros.	1 7 0	5 0 0
Ball's Exors.*	1 5 0	1 7 6

* Accepted.

NEW HUNSTANTON.—For the erection of an isolation hospital, for the Urban District Council. Mr. I. C. Walker, Surveyor, New Hunstanton:—

Fredrick Southgate	£324 18	James Beeton, Hunstanton (accepted)	£275 10
Reed & Wildbur	282 15		
John Nelson	275 0		

[Surveyor's approximate estimate, £270.]

NELSON (Lancs.).—For the construction of culvert, &c., Reedyford, for the Corporation. Mr. Ball, C.E., Borough Engineer, Town Hall, Nelson:—

Denis Hory, 14, Perth-street, Nelson £1,138 12

PLYMPTON (Devon).—For the erection of school buildings, Lee Mill. Mr. Edmund Sedding architect, Plymouth:—

Horton & Co.	£650	Sincock & Blight, Ivybridge (accepted)	£505
James Philips	590		
G. Andrews	520		

* Accepted.

PONTYCYMMER.—For erecting a new public hall, Pontycymmer, near Bridgend, for Mr. J. Williams. Mr. C. T. Evans, architect:—

David Llewellyn	£2,275 0 0	Williams & Thomas	£1,950 0 0
J. Roberts	1,986 0 0	B. Evans, Cardiff*	1,767 17 6
D. C. Jones & Co.	1,956 0 0		

* Accepted.

STEVENAGE.—For the supply of broken granite, for the Urban District Council:—

	s. d.
E. J. Van Praagh & Co., 6, Crosby-square, London, E.C. (accepted)	11 6
John Mowlem & Co.	13 8
H. N. Tyre	9 9
Whitwick Granite Co., Ltd.	10 3
Fergusson & Starkey	10 1
Narborough & Enderby Granite Quarries Co., Ltd.	9 10
Mountsorrell Granite Co., Ltd.	11 9 and 10 3
Ireland & Knight	10 6
Islip Iron Co., Ltd.	7 0
Enderby & Stoney Stanton Granite Co., Ltd	10 3
Ellis & Everard, Ltd	11 9
Croft Granite Co., Ltd.	10 1
William Grimley & Sons	10 3

STRATFORD.—For alterations and additions to Messrs. Carter, Paterson & Co.'s Depôt, Angel-lane, Stratford, under the superintendence of Messrs. William, Eve & Son, architects & surveyors, 10, Union-court, E.C.:—

Taylor & Son	£137	Godfrey & Son	£131
F. & H. F. Higgs	136	Josolyne & Young, 123a, Borough* (accepted)	105
Harris & Wardrop	135		

SURBITON.—For repairs and sanitary works to Beaumaris House, Surbiton, for Miss E. Forster. Mr. Walter J. Ebbetts, architect, Savoy House, 115, Strand, W.C.:—

Adkins Bros. ..... £338 10 | Foord & Sons (accepted) £297 0

WINCHMORE HILL (Middlesex).—Accepted for the erection of a house at Winchmore Hill, for Mr. Frank Cresswell. Mr. Henry V. Ashley, architect:—

Fairhead & Son, Enfield £927

TO CORRESPONDENTS.

P. H. W. (Amount should have been stated).—C. M. H.—A. H. (too late: next week).

NOTE.—The responsibility of signed articles, and papers read at public meetings, rests, of course, with the authors.

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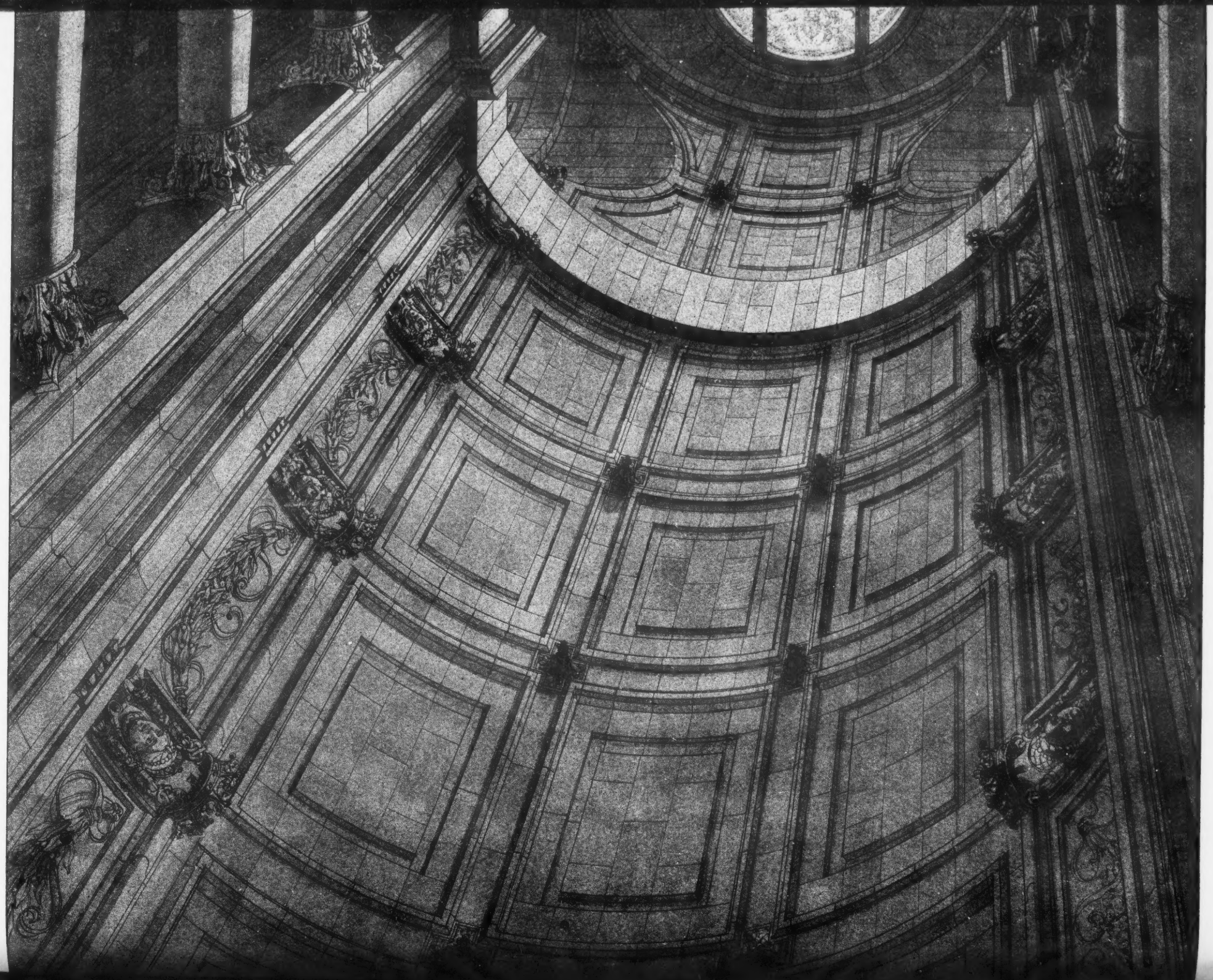

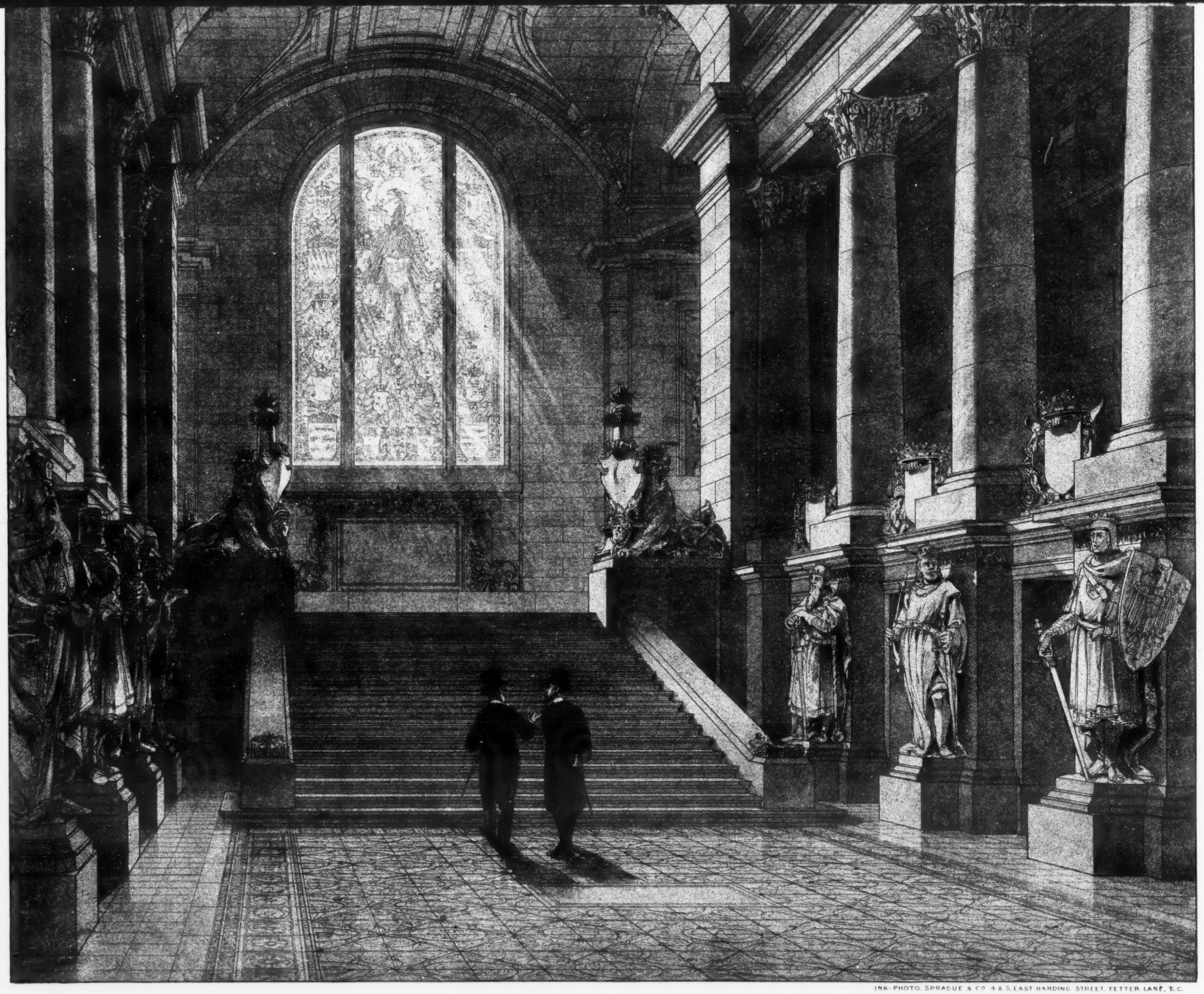

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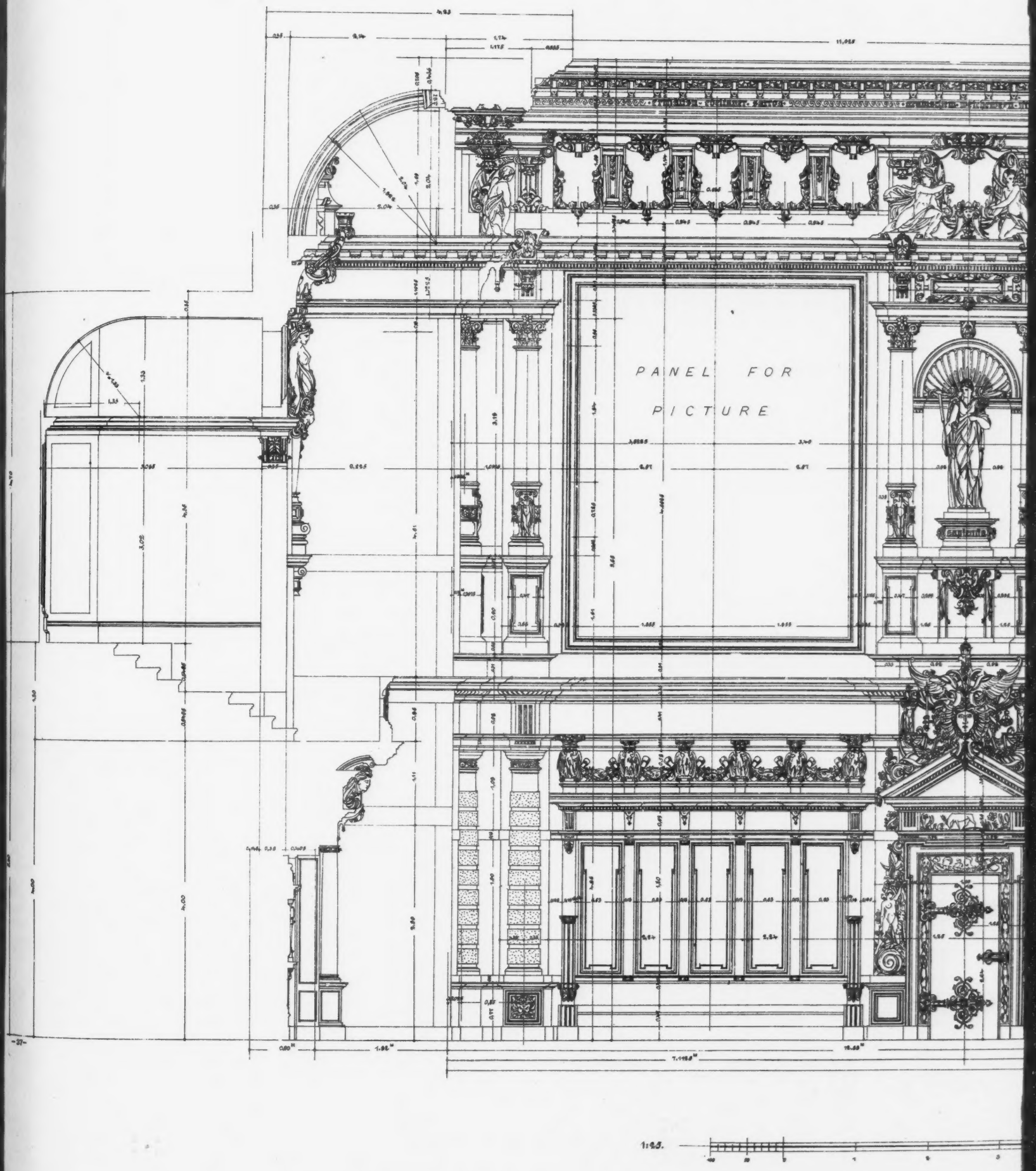
IMPERIAL HOUSES OF PARLIAMENT, BERLIN.—Professor Paul Wallot, Architect.
VIEW IN SOUTH ENTRANCE HALL.



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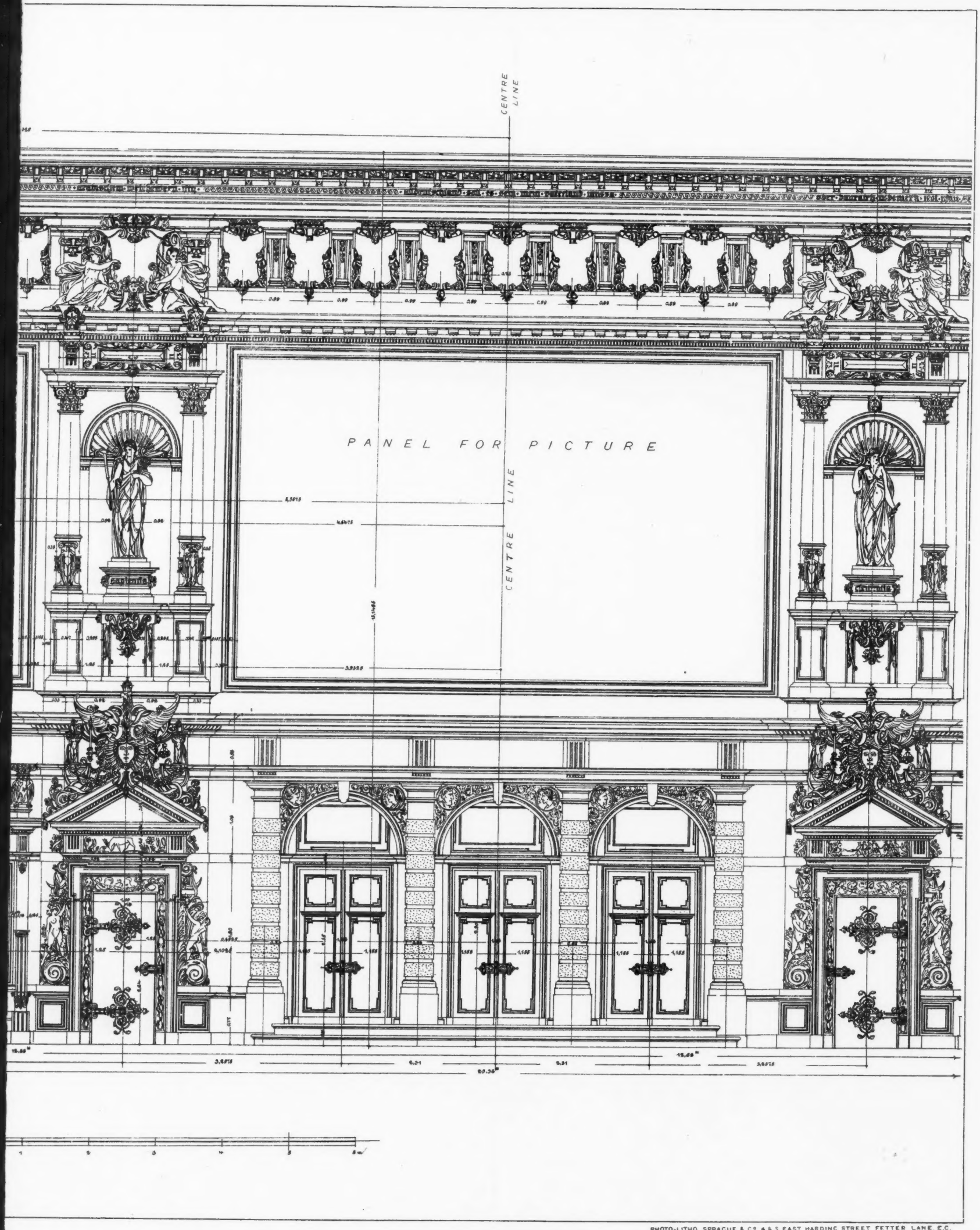

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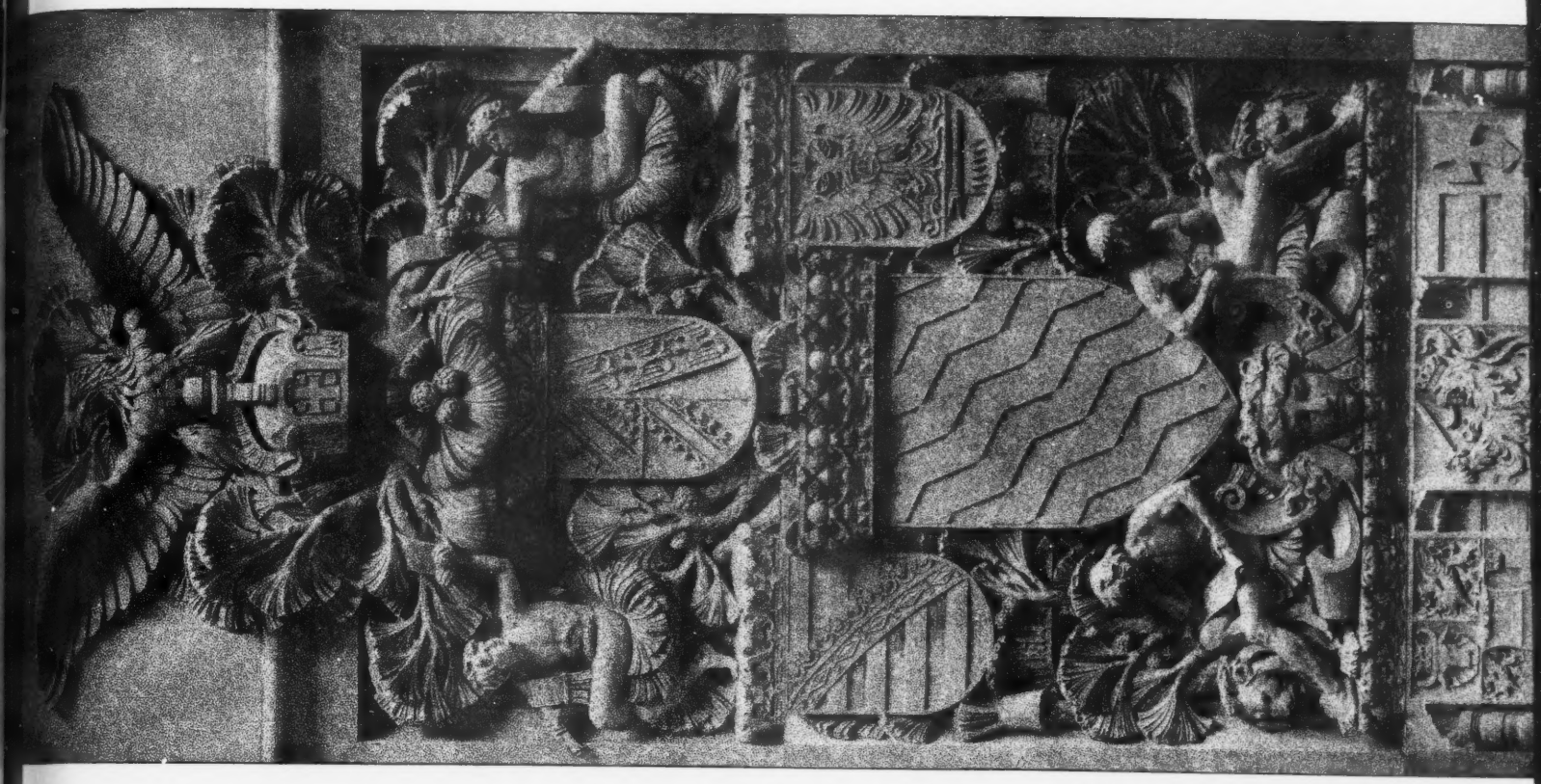
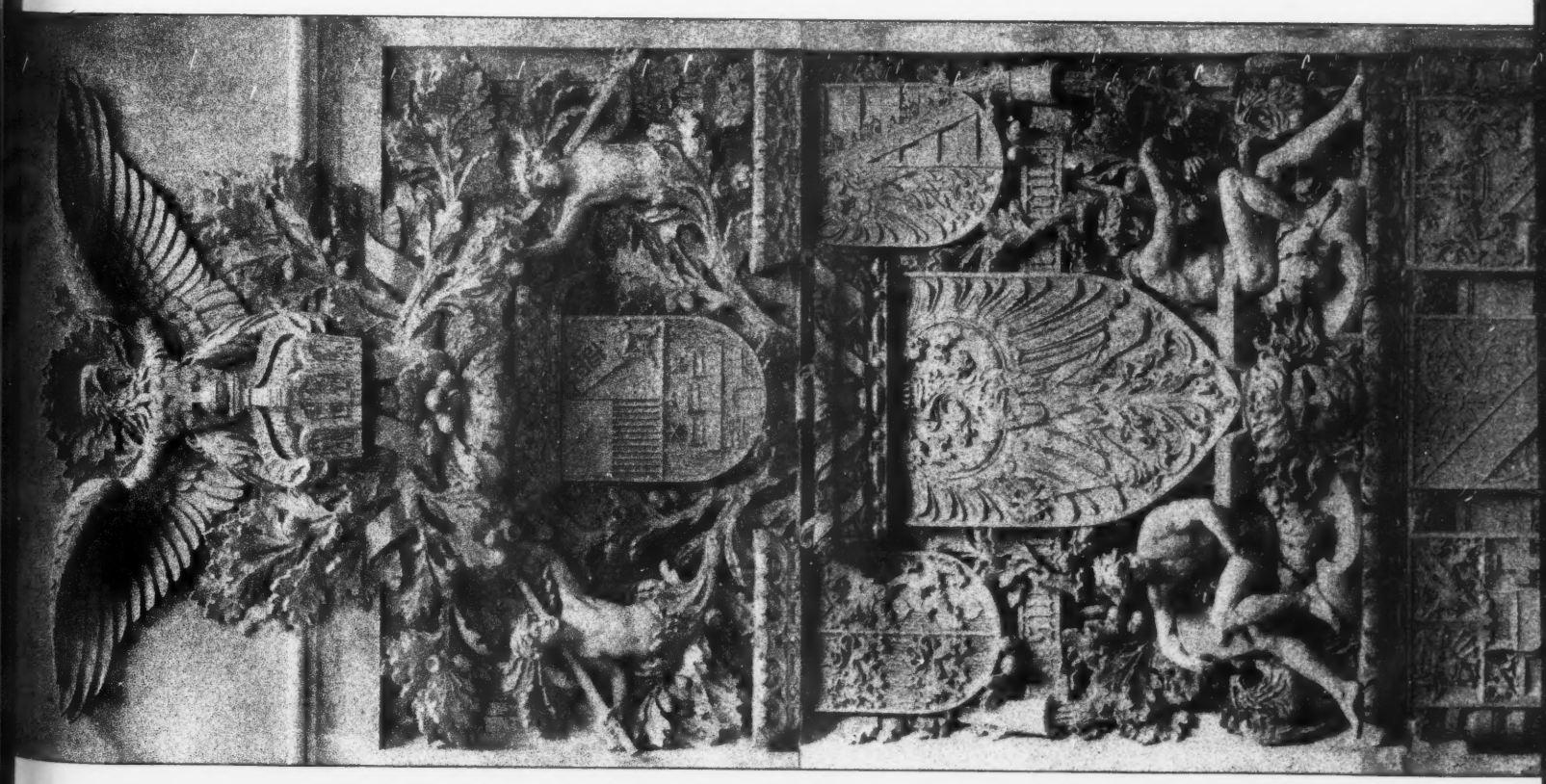
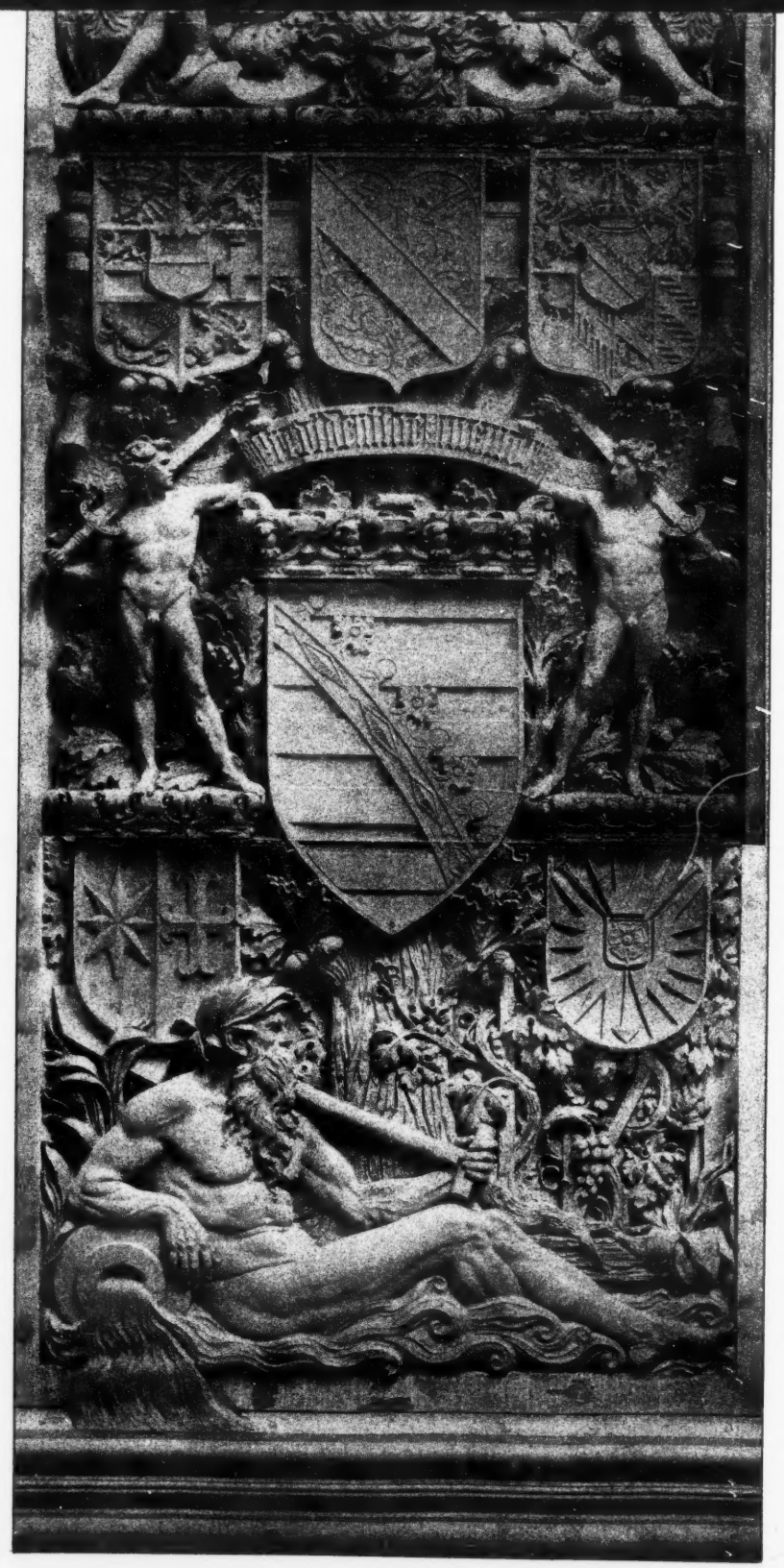
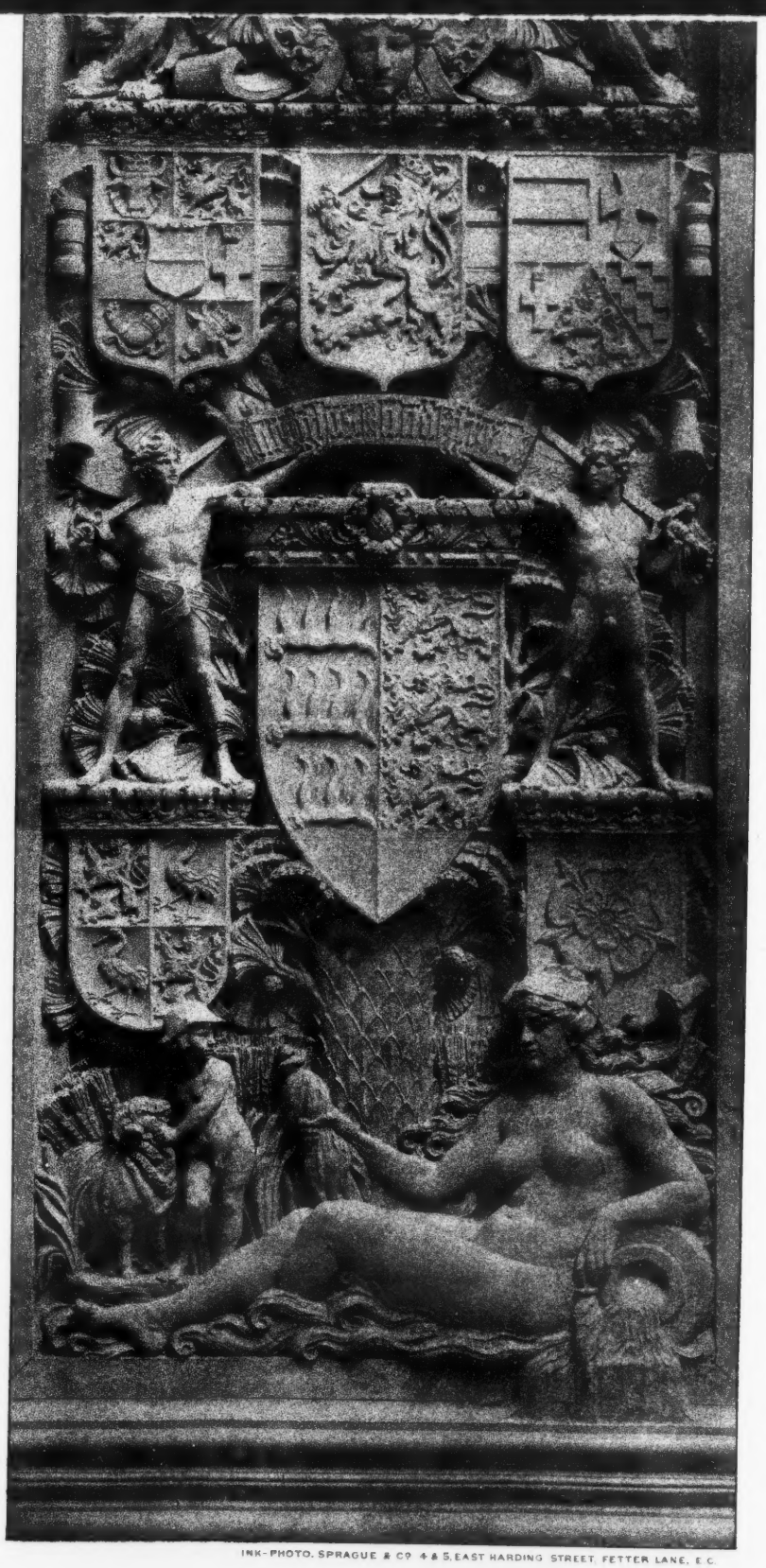
LIAMENT, BERLIN.—Professor Paul Wallot, Architect.
ON OF ONE WALL OF COUNCIL CHAMBER.



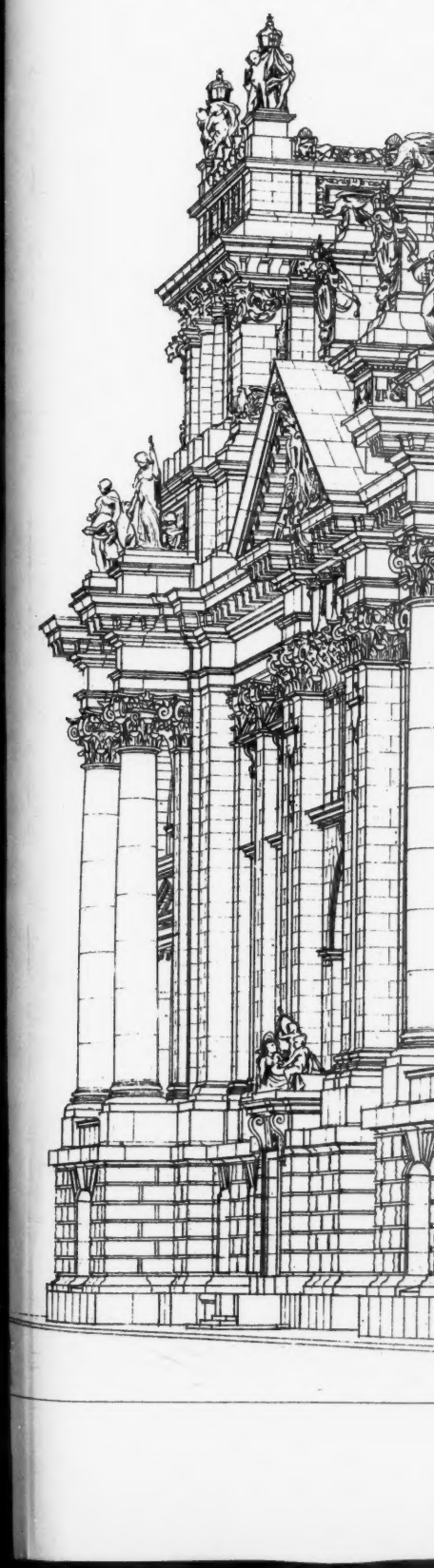


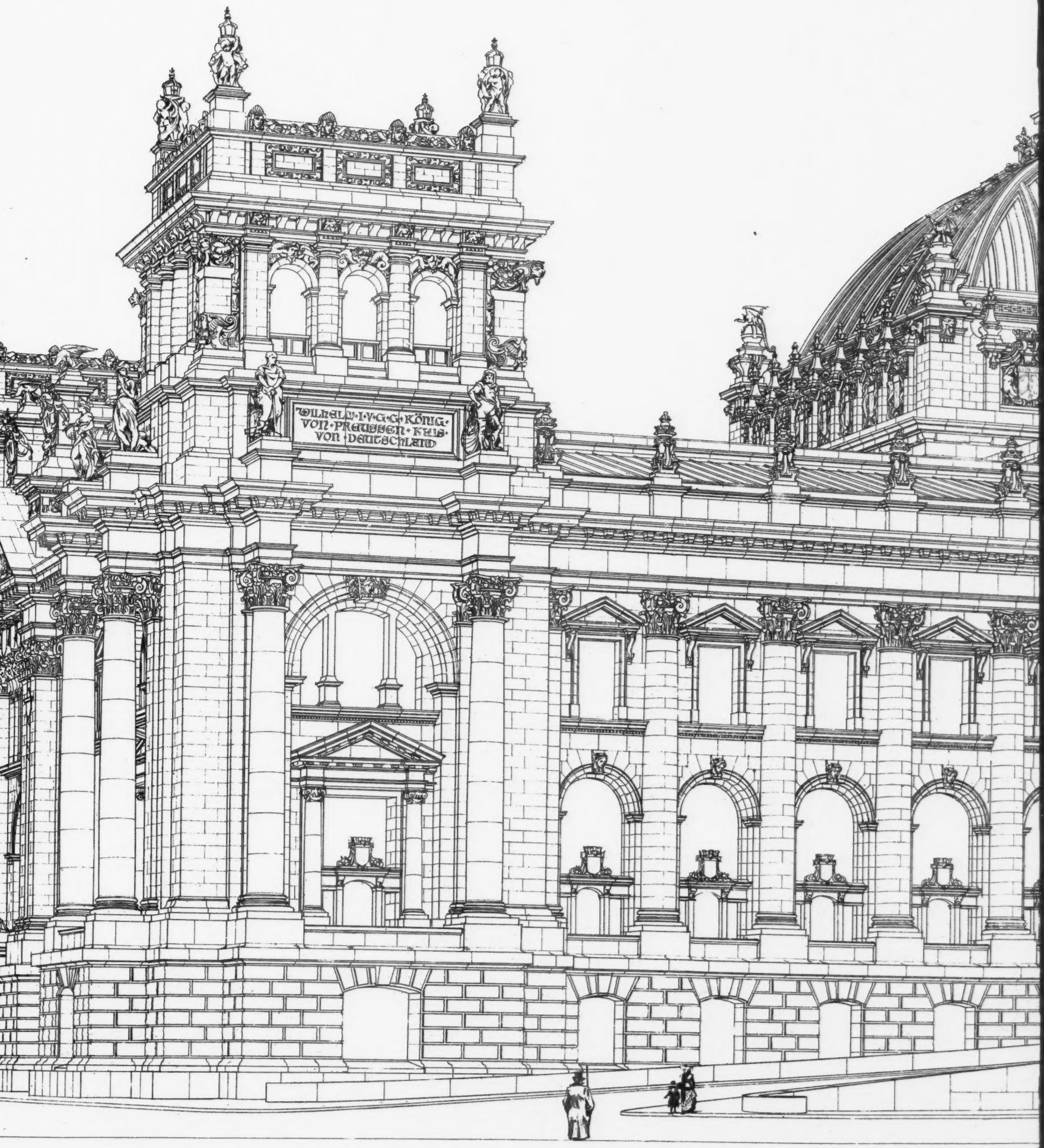




INK-PHOTO. SPRAGUE & Co 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

IMPERIAL HOUSES OF PARLIAMENT, BERLIN.—Professor Paul Wallot, Architect.
SCULPTURED PANELS AT SIDE OF MAIN ENTRANCE.

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VON·PREUSSEN·KAIS·
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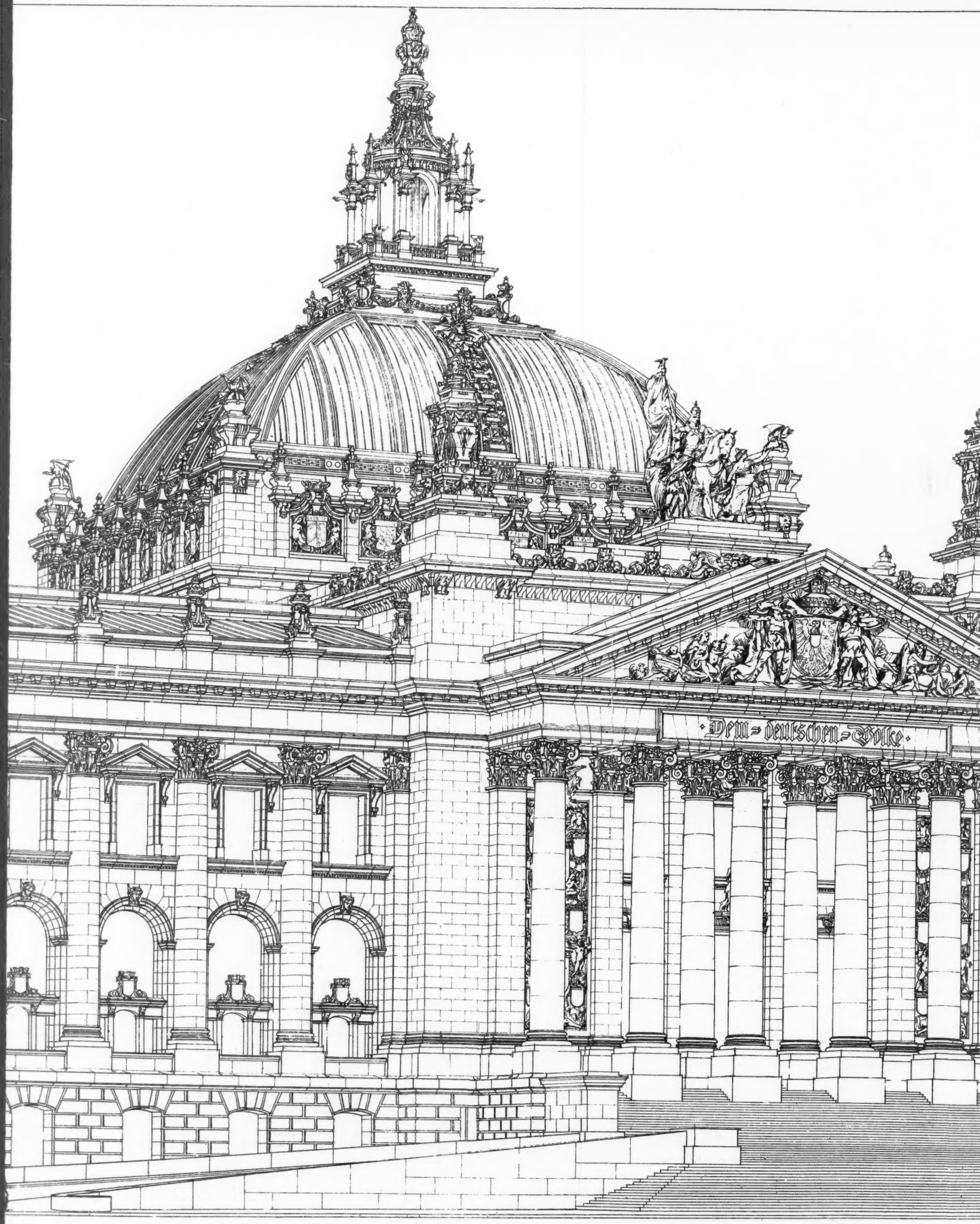

IMPERIAL HOUSES OF PARLIAMENT, BERLIN.—PROFESSOR PAUL WALLOT, ARCHITECT.
EXTERIOR PERSPECTIVE VIEW.

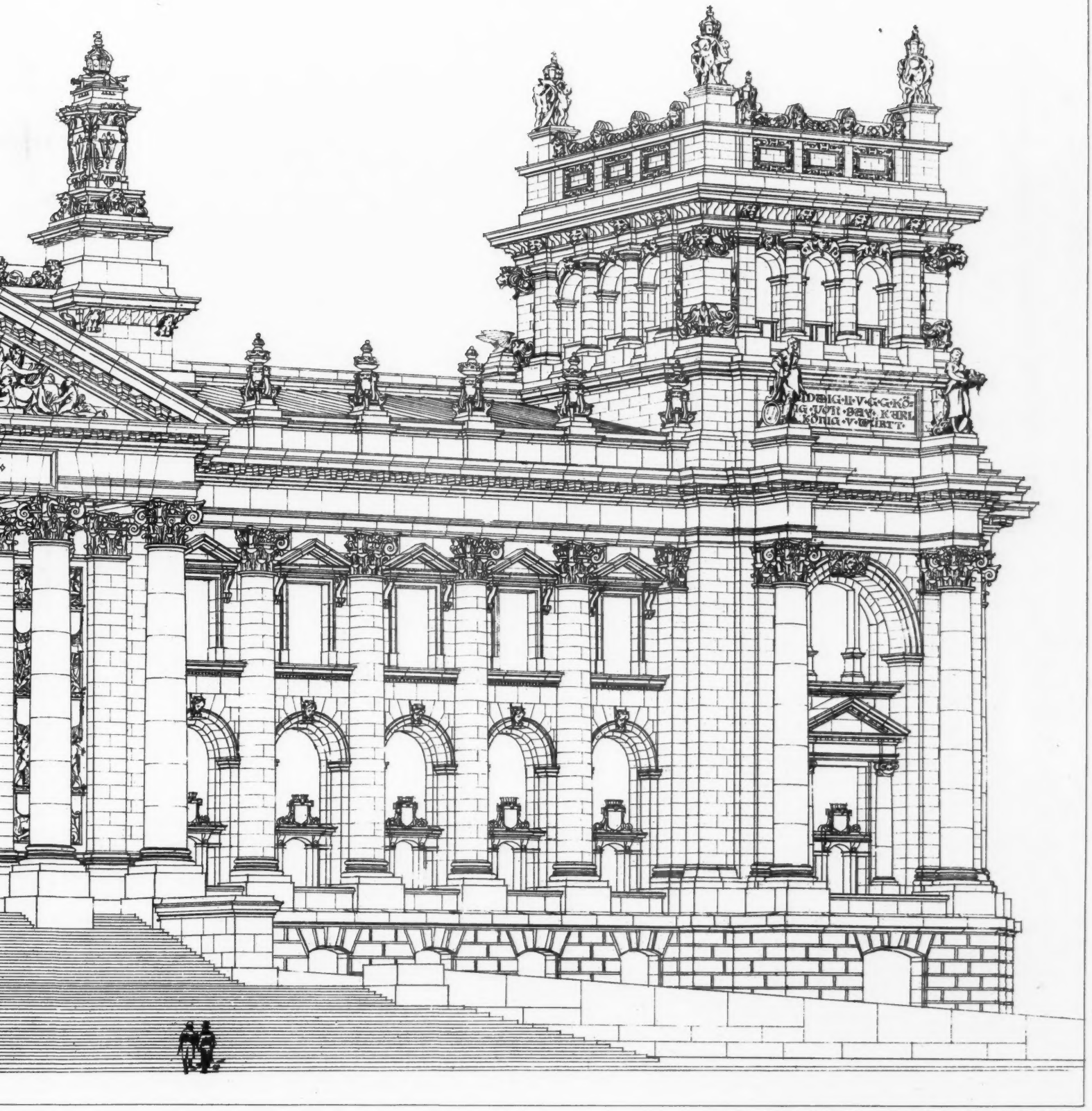

PHOTO-LITHO. SPRAGUE & Co 4 & 5 EAST HARDING STREET FETTER LANE. E.C.